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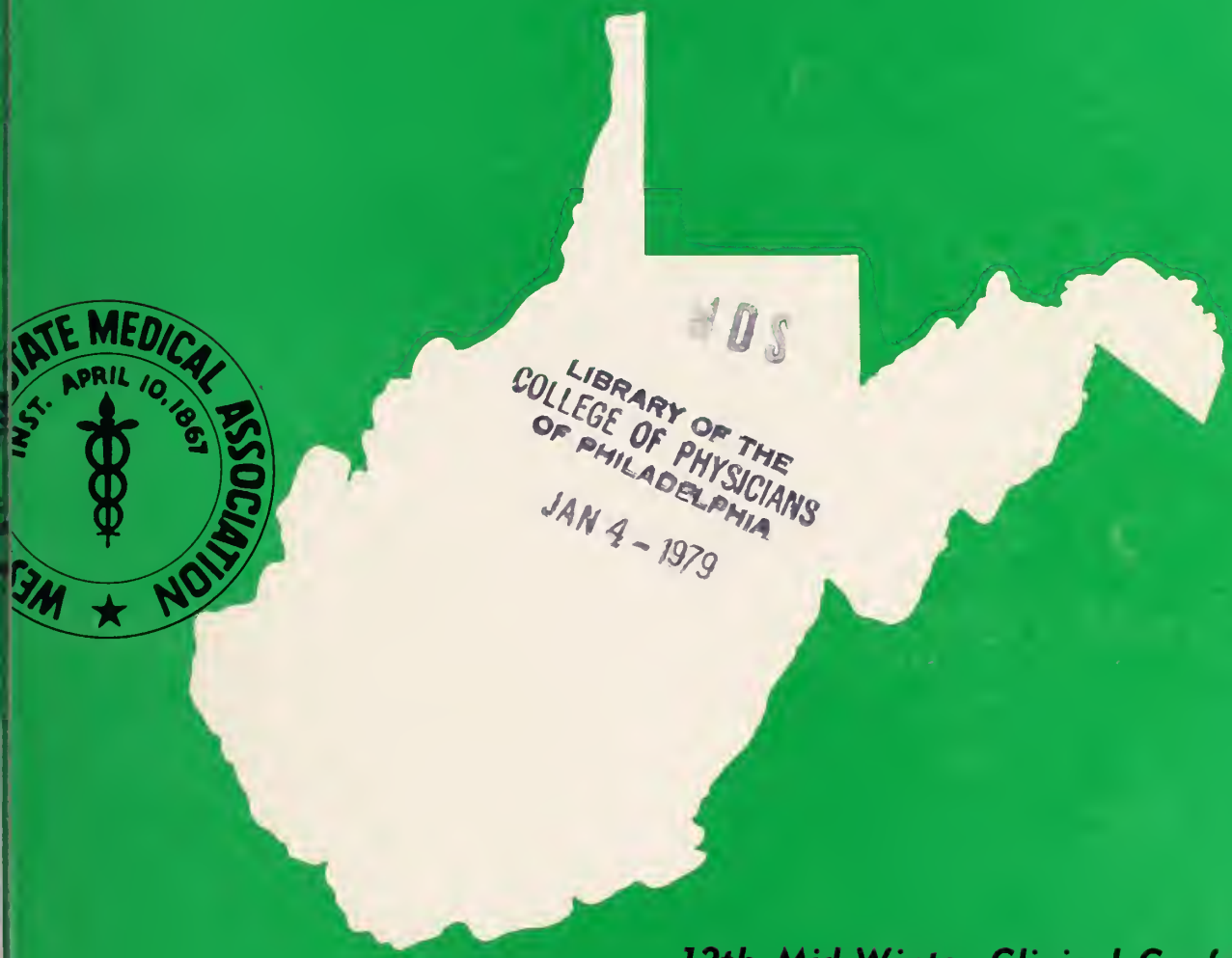


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***An Editor For 40 Years***
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Volume 75 Number 1
January 1979

# THE MESSAGE OF TENSION

HEADACHES
SWEATS
TENSE, TAUT MUSCLES
HYPERVENTILATION
TACHYCARDIA
PALPITATIONS
BURNING IN STOMACH
FULLNESS
FREQUENCY

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**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
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hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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# Outpatient Breast Biopsies Under Local Anesthesia

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*Breast biopsy under local anesthesia has become increasingly more acceptable to both patient and surgeon. Having a definite diagnosis of carcinoma before agreeing to a mastectomy plus the saving of time and money are major considerations in recommending this procedure. The trend toward greater utilization of outpatient biopsies under local anesthesia at West Virginia University Hospital is noted.*

Breast biopsies have been done under local anesthesia for a number of years. A routine was established for biopsy of clinically benign lesions under local anesthesia in 1950 at Walter Reed Army Hospital and in 1960 at the Portsmouth Naval Hospital. In more recent years, Caffee,[1] Hunt,[2] and Lou[3] have advocated breast biopsy under local anesthesia as an outpatient procedure for clinically benign lesions, with exceptions for patients with clinically malignant lesions if they requested it. In 1976, Baker[4] reported the experience at Johns Hopkins University where all patients with a breast mass were offered a biopsy under local anesthesia as an outpatient, although it was recommended that those with clinically malignant lesions should have a general anesthetic with subsequent mastectomy if frozen section proved to be positive.

A positive tissue diagnosis is essential for the proper management of cancer of the breast. This truism, coupled with the concept that the earliest possible removal of a cancer gives the best possible chance of cure, has led to the use of a single operation involving biopsy, frozen section and mastectomy. There have been reports over the years by Abramson,[5] Haagensen (1956),[6] Pierce,[7] Jackson[8] and others showing that a delay of up to two weeks between biopsy and mastectomy has no effect upon survival. Urban[9] states that a delay of more than two weeks in the presence of involved nodes does have an adverse effect on survival. Since adequate treatment can be accomplished with a short delay between diagnosis and treatment, we should consider the advantages of doing outpatient breast biopsies under local anesthesia.

### Advantages

I believe that medical advice and care will be sought more quickly by a patient with a breast lump if she knows that she will be told if she has a cancer before she is put to sleep and has her breast removed. About 80 per cent of breast masses are benign and about 90 per cent of breast masses can be correctly diagnosed by clinical evaluation. This information can be reassuring to the patient. Although I have been impressed with how readily patients accept this procedure under local anesthesia, I hasten to add that this is *not* the procedure of choice in every case. The patient must thoroughly understand what is to be done and how it is going to be done. If a patient insists on general anesthesia, she should have it. Being adamant about local anesthesia can be very traumatic to the patient and surgeon.

Doctors are being criticized for improper utilization of hospital beds and the high-cost medical services, and hospitals are being criticized for the high cost of the use of their facilities. The difference in the cost of a breast biopsy as an outpatient under local anesthesia and an inpatient under general anesthesia has been variously reported as between $300 and $700. At this institution it is about $500. Savings in time for both patient and doctor is considerable. The patient would be off work or away from home



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only a half day or one full day at most instead of the usual two days and two nights in the hospital.

Since this procedure is done in a minor operating room area and averages only 30 to 40 minutes, there is an important savings in major operating room time and convenience in scheduling. The surgeon saves time in preparation of the patient for an outpatient procedure since there is less paper work and time spent in the operating room awaiting a frozen section report before terminating the procedure.

### Technique

A few comments regarding technique are in order. The procedure should be thoroughly understood by the patient. No premedication is necessary. The operation should be done in an operating room environment with careful skin preparation and draping. An injection of one per cent Xylocaine with or without epinephrine should be used to infiltrate the skin over the mass and the subcutaneous tissue as necessary. Tissues should be handled gently and sharp dissection used at all times. The mass should be completely excised with a rim of normal adjacent tissue. After removal of the mass, hemostasis must be acquired by ligation or cautery. The breast tissue need not be closed if hemostasis is good. Subcutaneous tissue is closed with #4-0 catgut or Dexon and a subcuticular or skin suture used. Ten or 15 grains of aspirin is usually adequate for postoperative discomfort. Small, ill-defined lesions may be difficult to find after infiltration of the local anesthetic, but if the breast is stabilized before infiltration and during the procedure by an assistant, the lesion nearly always can be found. Nonpalpable lesions discovered by mammography can be located with a needle placed in the breast by the radiologist just before coming to the operating room.

### Complications

Complications of the procedure are rare and similar to those encountered under general anesthesia. Ecchymosis of the breast and hematoma of the wound occur, but I believe less frequently if epinephrine is not used with the Xylocaine. An exception was one patient who became very agitated during the procedure and, although we were able to finish the operation, it was a very disturbing experience to patient and surgeon. In retrospect, this patient should not have been scheduled under local anesthesia because she was very anxious about the procedure to the point of anorexia, nausea and vomiting during the morning before the operation.

Another patient stopped at a supermarket on her way home after the operation. As she picked up her groceries and went through the check-out counter the cashier, looking up to give her the sales slip, became very pale and startled. The patient looked down to see a large spot of blood coming through her blouse over her breast. Both of these complications were avoidable.

Objections to the procedure are difficult to validate. Infiltration of the Xylocaine around the mass should avoid any possibility of introducing tumor cells into the circulation. Careful handling of the tumor and surrounding tissue is necessary when using local anesthesia. Reactions to Xylocaine are rare and probably not as frequent as complications of general anesthesia. Only 20 to 30 cc's are usually needed, and aspiration prior to injection should prevent introduction of the Xylocaine and/or tumor cells into the circulation.

Haagensen[10] states that the patient may not consider the lump in her breast to be of any importance and that poor technique may be used if local anesthesia is recommended. I believe that all women consider a breast lump to be serious and I feel that better technique is required when using local anesthesia.

Seventy-four breast biopsies were done at West Virginia University Medical Center in 1973. Sixty-two were done under general anesthesia and 12 under local anesthesia. From August 1, 1976, to August 1, 1977, 99 breast biopsies were done at WVU. Seventy-three patients were done under local anesthesia and 26 patients were done under general anesthesia. These figures reflect our trend to recommend more breast biopsies under local anesthesia as an outpatient. I believe that all clinically benign lesions should be done under local anesthesia unless there is a compelling reason on the part of the patient or surgeon for general anesthesia. Direct admission of patients with clinically malignant lesions with biopsy under general anesthesia and frozen section with subsequent mastectomy remains an acceptable procedure and will be the procedure of choice for many patients and surgeons. Several authors favoring outpatient biopsies under local anesthesia for clinically benign lesions recommend admission and general anesthesia for all clinically malignant lesions.

### Conclusion

In conclusion, I believe that a breast mass should be handled in the following manner. A careful history and examination of the breast should be done to determine when the lump was

first discovered. Any change, since discovery, in size, pain, or tenderness (associated with menses), nipple discharge or skin changes should be recorded. If the mass is suggestive of fibrocystic disease, needle aspiration should be done. If fluid is obtained and the mass disappears, the patient can be reassured and followed with periodic examinations every three to six months. If fluid is not obtained, biopsy of the mass should be recommended under local anesthesia. If the biopsy appears to be benign, the patient is asked to return in three days for a definitive report and wound inspection. If the biopsy tissue is suspicious of malignancy, a frozen section should be done. If the frozen section is reported as malignant, the patient should be admitted on the same day and, after adequate preoperative evaluation, definitive surgery should be done within one or two days.

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# Coffee Drinking Cleared

COFFEE drinking gets a clean bill of health in a Georgia research study reported in a recent issue of Archives of Internal Medicine, a scientific journal of the American Medical Association.

Total deaths showed no association with coffee usage in Evans County, Georgia, said Siegfried Heyden, M. D., of Duke University Medical Center, and colleagues.

Deaths from coronary heart disease showed no statistically significant difference between high and low coffee consumers, Doctor Heyden reported. "In an area that has been designated as the 'Stroke Belt,' neither coronary heart disease nor stroke death rates seem related to coffee-drinking habits," he commented.

# Calcified Adrenal Cysts

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*Greiselius,[7] in 1670, first reported a case of adrenal cyst in a 45-year-old male who died as a result of rupture of the cyst. In 1894, Pawlick,[11] in Germany, aspirated 10 liters of bloody fluid and carried out subtotal excision of the cyst; this patient had uneventful recovery. Isolated cases of the adrenal cysts were reported by M'Cosh[9] (1906) and Devecci[3] in 1910. Wahl,[13] in 1951, recorded nine adrenal cysts after studying 13,996 autopsies. The literature on 155 cases of the adrenal cysts was reviewed by Abeshouse[1] in 1959; 88 of these were found at autopsy and 64 were removed by surgery. To date, 241 cases of the adrenal cysts are recorded.[12] We wish to add two cases of adrenal pseudocysts which were seen at Appalachian Regional Hospital, Beckley, West Virginia.*

### Case One

L.G.M., a 50-year-old, white female, was admitted to Appalachian Regional Hospital, Beckley, West Virginia, on January 15, 1976, with a 12-hour history of left-sided abdominal pain. She had had a car accident two weeks prior to admission and sustained injury to the left flank. The abdominal pain was dull, continuous and radiated to the back; there was no history of nausea or vomiting. Apart from a cholecystectomy, she had not had any major illnesses in the past. She denied having any urinary symptoms.

Physical examination revealed a well-developed, well-nourished, white female in no acute distress, with a pulse of 92/mt. regular, a B. P. 130/90 mm. Hg., and a temperature of 99.4°F. The heart and lungs did not reveal any abnormality. Abdominal examination revealed an eight-by-five-cm. tender, firm, smooth, ballotable mass which was located in the left flank. The remainder of the physical examination was normal. Laboratory data showed Hgb. 12.5; Hct. 38; WBC 7,200; urine 33-36 RBC; 12-16 WBC. Electrolytes, SMA 12, EKG and chest x-ray were normal. The x-ray of the abdomen showed a four-by-four-cm. calcific density in the left upper quadrant (Figure 1). An intravenous urogram showed a nonfunctioning left kidney (Figure 2). Transfemoral selective renal angiography revealed that the left kidney was hydronephrotic, and the calcification was located above the upper pole of the kidney (Figure 3).

This patient underwent surgery on January 21, 1976. Through a left lumbar incision a large left kidney and the calcified left adrenal gland were removed. The left kidney was hydronephrotic and measured 14 x 7 x 4 cm. The left adrenal was 7 x 3 x 3 cm. in size, showing calcification and containing gelatinous material. This was histologically reported as a pseudocyst of the adrenal gland. She made an uneventful postoperative recovery and was released on January 29, 1976.

**Figure 1. Shows calcific density in the left upper quadrant of the abdomen.**

**Figure 2. Intravenous pyelogram showing nonfunctioning left kidney. Calcific density is seen in the left upper quadrant.**

### Case Two

A. M., a 54-year-old, white female, was admitted to the Appalachian Regional Hospital, Beckley, West Virginia, on March 11, 1969, with a six-week history of anorexia and loss of weight. She had vague abdominal pain and a bout of hemoptysis prior to admission. She had not had any major illnesses in the past.

Physical examination revealed a well-developed, well-nourished, white female in no acute distress. She had a pulse of 76/mt. regular; B. P. of 130/80 mm. Hg., and a temperature of 98°F. Examination of the chest revealed rhonchi in the region of the left upper lobe. Examination of the abdomen did not reveal any abnormality. The remainder of the physical examination was normal.

Laboratory data showed Hgb. 13.2; Hct. 44; WBC 7,100; Alk. phosphatase 110; urine, normal; and SMA 12, normal. Chest x-ray revealed a density in the right upper lobe, three by four cm. in size. The x-ray of the abdomen showed a three-by-two-cm. calcific density in the right upper quadrant (Figure 4). An intravenous urogram indicated that the calcification was located above the upper pole of the right kidney (Figure 5). The tumor could not be seen on bronchoscopy due to the peripheral location. The bronchial washings were negative for cytology.

On clinical grounds, an intra-abdominal metastasis could not be ruled out. The patient underwent surgery on March 13, 1969. Exploration of the abdomen by a right subcostal incision was negative for any metastasis. The calcification was present in the right adrenal gland, which was removed without any difficulty. The frozen section report was benign lesion. The patient was then turned to the lateral position and a right pneumonectomy was performed. The tumor mass was four by three cm. in size, and was reported as well-differentiated squamous carcinoma of the lung. The right adrenal measured 2 x 1.5 cm. in size, and showed marked calcification and cystic degeneration. The patient made an uneventful recovery and was released March 23, 1969.

### Discussion

Adrenal cysts are most common between the third and fifth decade.[12] In the series reported by Abeshouse,[1] there was female preponderance, with a ratio of three females to one male. The majority of the cysts are unilateral. Bilateral cysts occur in eight per cent of the

**Figure 3. Selective renal angiography showing hydronephrotic left kidney. The calcific density is located medial to the upper pole of the kidney.**

**Figure 4. Shows the calcific density in the right upper quadrant.**

cases. The incidence and the etiological types of the adrenal cysts, as described by Foster,[4] are as follows: (1.) *endothelial cysts* (45 per cent); 42 per cent are lymphangiomatous and three per cent are angiomatous; (2.) *pseudocysts* (39 per cent) result from the hemorrhagic extravasation and necrosis within the normal or pathological gland (the hemorrhagic areas undergo liquefaction, absorption, encapsulation and thus form large cysts); (3.) *epithelial cysts* (nine per cent): (a) true adrenal cysts, usually rare; (b) embryonal cysts; (c) cystic adenoma with degeneration; and (4.) *parasitic cysts* (seven per cent) are mostly echinococcal and may be part of the generalized hydatid disease.

Most of the adrenal cysts are minute in size. Pseudocysts are larger than other types. Foster[4] recorded the largest adrenal cyst, measuring 33 cm. in size, which contained 12 liters of fluid and weighed 22.5 kg. Clinically, most of the cysts are asymptomatic and are discovered on roentgenological examination of the abdomen. The clinical features in some of the cases are dull pain in the renal angle, G. I. symptoms, e. g., nausea, vomiting, belching flatulence and constipation, and a palpable mass in the abdomen. Sacral sciatic mass has been reported in the literature. Patients may occasionally complain of fatigue and weakness. Foutain[5] (1969) and Gigax[6] (1972) reported isolated cases of hypertension associated with the adrenal cyst which was cured on excision. In the unilateral cyst, the opposite adrenal is usually functioning and the excision of the cyst, therefore, does not cause adrenal insufficiency. However, five cases of adrenal insufficiency following removal of cysts from the gland are reported in the literature.

Both of our patients were females in their fifties. Both presented with abdominal pain and vague gastrointestinal symptoms which were probably not related to the adrenal cyst. Hydronephrosis of the kidney was the cause of the abdominal pain in one patient. Abdominal x-ray showed calcification in the area of the suprarenal in both cases, and was confirmed by intravenous urogram. One patient had associated hydronephrosis of the kidney, and the other had carcinoma of the lung.

### Correct Diagnosis Rare

A correct preoperative diagnosis of the adrenal cyst is seldom made. The presence of the calcification in the adrenal area is a major roentgenologic sign. When a perirenal curvilinear cal-

**Figure 5. Intravenous pyelogram showing the location of density above the upper pole of the kidney.**

cification is seen, this is diagnostic of adrenal pseudocyst. Palubinskas[10] reported four cases of adrenal cysts and stated that laminar calcification at the periphery of the suprarenal area is characteristic of benign cystic adrenal lesion. Excretory urography usually shows downward displacement of the kidney. A gastrointestinal series helps to delineate large tumor masses. Selective renal and adrenal angiograms help to indicate the location and malignant potential of the lesion. Cerney[2] states that selective adrenal venography is extremely useful in the evaluation of adrenal lesions. Selective adrenal angiography has been found by Kahn[8] to be a useful procedure. Examination of the 17 ketosteroids and hydrocorticoids helps to exclude endocrine lesions of the adrenal. The differential diagnosis of adrenal cysts includes tumors and cysts of the kidneys, liver, spleen, pancreas, mesentery gall bladder and aneurysm of the splenic artery.

Surgical treatment of the cyst is usually indicated if the general condition of the patient permits. In infants and children, surgical exploration of the adrenal mass is recommended because cystic lesions and calcifications have been seen in neuroblastoma, and it may be very difficult to be sure of the nature of the lesion without surgery. Bilateral cysts compromise the function of both adrenals and there is inherent risk of adrenal crisis when surgery is done. The ideal treatment in such cases is partial or total excision of the cyst with preservation of the normal adrenal tissue. Frozen section is recommended in all cases.

One of our patients had a cyst in the right adrenal which was approached through a right subcostal incision, and right adrenalectomy was done without difficulty. This patient also had cancer of the right lung, and underwent pneumonectomy; the other patient had hydronephrosis associated with the adrenal cyst. Left nephrectomy and adrenalectomy were performed through a left lumbar incision. Both patients had uneventful postoperative recovery.

For the small adrenal cysts, lumbar incision is probably adequate. If greater exposure is needed the 12th rib can be resected. For larger cysts, dorsolumbar osteoplastic flap of Nagamatsu is advised. For huge cysts, extended abdominal or thoraco-abdominal incision is recommended. The mortality from surgery of adrenal cysts is about nine per cent.[4] The majority of patients die of shock and peritonitis.

### Summary

Two hundred and forty-one cases of adrenal cysts are reported in the literature. Females between the third and fifth decade are commonly affected. Most of the cysts are asymptomatic. Gastrointestinal symptoms and hypertension have occasionally been reported. A large percentage of cysts are diagnosed on radiological examination because of the classical laminar calcification. Intravenous urogram, renal and adrenal angiography and adrenal venography are recommended for evaluation of the nature of the lesion. Most of the cysts are small and could be removed by the lumbar incision. Larger cysts may require rib resection, or an abdominal or a thoraco-abdominal approach. Mortality from surgery is reported as nine per cent. Acute adrenal crisis has been reported to occur in a few cases.

We wish to add two cases of the adrenal cyst to the existing literature. Both patients had vague gastrointestinal symptoms and abdominal pain. Abdominal x-ray, intravenous urogram and renal angiography were useful in localization of the adrenal lesion. Both cysts in our patients were removed without any difficulty. One patient had pneumonectomy, and the other, nephrectomy along with excision of the cyst.

### Acknowledgement

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# Special Article

# Cost Containment In Contemporary Medicine

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*The health care profession is rapidly expanding to become one of this country's largest industries. Because of increasing inflation and greater demand for guaranteed health care, cost control has emerged as a tremendous problem. In order to resolve the cost containment dilemma, each and every physician must develop an attitude of cost awareness. Through such diverse areas as ambulatory care, diagnostic studies and energy conservation, the physician can help stem the tide of overwhelming medical expense for the patient. The American Medical Association can play a leading role in cost control education. Only through these measures can the medical profession begin to cope with the cost containment dilemma.*

HEALTH care is rapidly emerging as this country's number one industry. Health services constitute approximately 8.5 per cent of the Gross National Product. Medicare is currently a $22 billion-per-year program. With a current 9.5-per cent national inflation rate and the ever increasing usage of Medicare benefits, this figure is certain to skyrocket within the next few years.

The Department of Health, Education, and Welfare has been called upon to find solutions to the problem of guaranteed health care benefits not only for the elderly but for all U. S. citizens. A National Health Insurance Plan has, of course, been studied; but the major drawback is where to find the money to pay for such a program. The current financial commitment to Medicare incorporated into an NHI Plan would pose an astronomical financial burden to the taxpayer. Besides the problem of how to finance National Health Insurance, the dilemma of how to control medical expenditures is another major obstacle to enactment of such a program.

Whether or not NHI will become a future reality is not clear. The fact remains that medical costs are climbing, and government intervention will be certain if expenditures cannot be controlled. The primary care physician has an integral role to play in solving the cost control problem. If adequate solutions cannot be reached, the medical profession will be saddled with the blame, and another milestone will be reached on the road to socialized medicine.

The American Medical Association can take a leading role in helping to solve the cost containment problem. Through physician education, the medical profession can become a cost-conscious profession. The following areas can be stressed as important starting points toward cost awareness.

### Ambulatory Care

In order to reduce the cost of an individual patient's hospital experience, it is necessary to have the care provided at the most appropriate level. This will further result in a corollary reduction in hospital expense. One of the most rapidly expanding areas for providing such cost-efficient care is through an ambulatory surgical facility. Procedures such as excisional biopsies, vasectomies, circumcisions and most endoscopic procedures, should routinely be performed in such an ambulatory unit.

Establishment of a multispecialty outpatient surgery facility might be economically rewarding both to the patient and to the clinic group. Skilled home nursing care follow-up can be employed for these patients, as well as for selected inpatients who may be early-discharge candidates.

### Diagnostic Studies

Another important area of potential cost control is that of diagnostic studies. All laboratory tests should be judiciously ordered only after careful consideration of patient cost versus potential information gained. Thorough preoperative laboratory investigation can usually be carried out on an outpatient basis, thus saving at least one or two days of hospitalization for an elective operative procedure.

Likewise, specialized radiographic procedures such as ultrasound, nuclear scans and computerized axial tomography should be ordered only when absolutely necessary. If a clinic or hospital is considering the addition of one of these diagnostic modalities, a thorough cost-versus-need analysis should be performed prior to a large

capital investment. Another alternative is the possibility of sharing diagnostic equipment with other health care facilities.

### Prescription Drugs

Retail drug costs are an often overlooked factor in health care. The busy physician is frequently unaware of the major cost differences among prescription drugs. Unfortunately, the only link to the drug cost problem is the drug detail man who is more apt to impress a doctor with serum-versus-urine concentrations rather than "pocket book drainage potential." Therefore, it is important always to ask the question, "What will this drug cost the patient?"

An example of this problem is the patient who presents with an acute cystitis. If he is billed $20 for an office visit and urinalysis, plus $10 for a urine culture, the patient should not be given a $30 prescription for a cephalosporin when a $4 course of sulfa could have irradicated the infection. In order to avoid this problem, the physician can obtain a comparative wholesale drug cost list through the *Red Book* published annually by Medical Economics, or can contact any local pharmacist for a specific retail drug cost.

### Energy Conservation

With the recent national coal strike as well as the realization that energy resources are finite, energy conservation has become a current necessity. Energy costs are rising rapidly, and measures must be taken now to help slow the cost increase. Alternative heating sources should be studied if there is a shortage or an excessive cost of a particular fuel. Investigation of current heating and cooling systems may yield a simple money saving modification or may point toward the need for a major overhaul. Installation of an incinerator waste disposal system with heat recovery and drastically reduce both waste disposal and heating costs. Finally, thermostats should be lowered in all storage and nonworking areas.

Electrical energy consumption can be reduced by converting incandescent to fluorescent lighting and eliminating unnecessary light fixtures. Maintaining equipment and machinery at maximum operating efficiency can also cut down on electricity consumption.

### Office Expenses

The area of office overhead expense is a fruitful one for exploring cost containment. Shared purchase arrangements between hospitals or clinical groups can reduce significantly costs through large-volume purchasing. Such things as pharmaceutical products, instruments, office supplies and other equipment can be obtained more economically through a shared-purchase commitment. Special services such as laundry, maintenance, dietetics, microfilming, parking and central sterile supply can be obtained most economically through a shared group-contract arrangement. Finally, cost comparisons must be made before entering into a contractual arrangement. The difference in price between reusable and disposable towels and instruments can be quite variable. A tremendous savings can be realized if attempts are made to purchase wisely!

### Cost Containment Committees

In November, 1975, the Board of Trustees of the American Hospital Association passed a resolution urging the establishment of cost containment committees by all hospitals. The purpose of such committees has been to investigate, to advise and to participate in the implementation of cost containment measures within the hospital. These committees are ideally composed of representatives from the medical staff, administration, public relations, nursing, housekeeping and maintenance. The opportunity for a physician to participate on such a committee would be both challenging and rewarding. Utilization of the information and techniques gained from such a committee would be of value in application to a private group practice or clinic setting.

### Terminally Ill Patient Care

At the present time, over 50 per cent of all deaths occur within the hospital. Terminally ill patients constitute a group of individuals who face prolonged inpatient care prior to death. This is a result of a lack of skilled home nursing care as well as reluctance on the part of the family members to have a loved one expire at home.

Every effort should be made to allow the dying patient to spend as much time as possible outside the hospital. A special nursing service for the terminal patient can provide frequent home care visits and can lend moral support for the troubled family. Having a nurse on call 24 hours a day to answer questions and to deal with family crisis can support further this type of program.

### Education

As mentioned earlier, through physician education the medical profession can become alerted to areas of potential cost containment. Education

should begin early in the course of medical training and should be integrated into the core medical school curriculum. Emphasis upon drug costs in pharmacology; laboratory service costs in physiology and microbiology as well as facts about hospital expenses, and operative and clinical fees in the introductory clinical courses must be provided by all medical schools.

The major medical journals are the ideal media to reach practicing physicians regarding suggestions for cost containment. Cost-awareness discussions can be planned as a part of the program for many district and state meetings. Important decisions can then be made by the State Medical Association through an Ad Hoc Committee on Cost Containment.

## Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 1/2 by 11 in.) white paper. Wide margins (at least 1 1/4 in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

# Special Article

# An Associate Editor For Forty Years

E. J. VAN LIERE, M. D.
*Dean and Professor Emeritus, Physiology and Biophysics, West Virginia University Medical Center, Morgantown.*

THE year 1978 marked my 40th as an Associate Editor of *The West Virginia Medical Journal.* This must be some kind of a record. My tenure probably is related in large measure to the fact that I have lived so long. I wish to make quite clear in this essay that I am presenting only my own views, and not serving as spokesman for the Publication Committee, of which I am only a humble member.

When I first became an Associate Editor, 40 years ago, good manuscripts for the *Journal* were at times difficult to obtain. At that time, the clinical departments of the West Virginia University School of Medicine had not been developed. In 1960, the third year of medicine was inaugurated, and the clinical men who had been added to the staff began to contribute manuscripts. As time went on, the Publication Committee began to receive plenty of material.

A good Editor must have the courage of his convictions, and must review all manuscripts with a critical eye. This is not always easy, especially if the author of the manuscript is a colleague or a close friend. Throughout the years, I have always disliked to turn down a manuscript, although goodness knows I have voted down a good number. I believe it is fair to assume that, in the majority of instances, the author of the manuscript did his best and felt his contribution should be accepted by the Publication Committee. It should be explained that the Editor is assisted by six Associate Editors, and in order for a manuscript to be accepted for publication, approval of four Editors is necessary.

### Good, Readable English

This essay is not written to instruct persons how to write an acceptable manuscript for publication in the *Journal,* but a few random thoughts may be in order. A Medical Editor does not expect to receive a manuscript written in a fine literary style, or a lively style, or even a pleasing style; but he does like to have it written in good, readable English. Punctuation is, of course, of some importance. It has been said that there are two types of authors, those who use too many commas, and those who use too few. (I hope that I fall midway between these groups of offenders.) Some authors seldom, if ever, use semi-colons; I like to use semi-colons. They are especially useful in long or rather involved sentences; they rest the mind's eye, and do not break the continuity of thought.

There are a few individuals who are naturally good writers, but an Editor must recognize that only a relatively small percentage of physicians write clearly and well. This may be because writing is not properly taught in this country. Canadian and English schools apparently train students to write more concisely than do schools in the United States. I hope that eventually something will be done to remedy this defect in our educational system.

Because of my long tenure as Associate Editor, I have had occasion to read many manuscripts. The great majority of these were authored by physicians practicing in our State. Many of them were well done, some were only fairly well done, and a few, miserably done. A few were obviously written by "ghost writers." I recall in particular one manuscript submitted to the Publication Committee by a physician practicing in the State. I knew him well and had a fair idea of his ability. The manuscript had to do with a commonly used tranquilizing agent. It was written in a faultless style—indeed, it was nearly perfect. Plainly, it had been prepared by the drug company which manufactured the preparation. A number of papers had been published in the *Journal* on this agent, so we were able to tell the author truthfully that, because of this, we could not accept his manuscript. It is quite possible that the Editors of the *Journal* have published manuscripts written by "ghost writers," but I hope not many. (I have a dim view of "ghost writers.")

### Many Manuscripts Waiting

I also have reviewed a fair number of manuscripts written by physicians who were not residents of West Virginia. In some instances, it was rather obvious that some of these had been

turned down by other Editors, although occasionally a good manuscript was received which was published in the *Journal.* Since presently we have so many manuscripts submitted by physicians in our State, physicians who reside elsewhere should not be encouraged to submit manuscripts—although, at times, of course, there may be extenuating circumstances.

Many years ago, a manuscript was submitted by a physician who lived in the South. It appears that he was a man of deep religious faith, and his manuscript contained almost as much religious philosophy as medical information. He spoke repeatedly of the "Great Physician" and "Help and Guidance from Him." He was undoubtedly a high-minded man and a dependable and conscientious physician, but on the whole his manuscript was impossible, and actually contained no valuable medical material. It was returned to him. I do not know whether he had previously submitted it to his own state journal, but imagine he was disappointed and felt that he had done an excellent job. I had occasion to look him up in the latest AMA Directory and observed that he was still in practice. I wish him well, and trust that he has since had better luck with his manuscripts.

### All Branches of Medicine

One of the most important factors governing the acceptance of a manuscript for publication is whether it is of sufficient interest to our readers. An attempt is made to publish articles on practically all branches of medicine. This is quite in order since the *Journal* serves all members of the profession practicing in the State. Some manuscripts submitted are so technical, however, that they are out of place in a state medical journal, especially those which deal with minute descriptions of a surgical operation. Such manuscripts should be sent to an appropriate surgical journal.

An author should not feel offended if a manuscript is returned to him requesting that certain portions be revised, or that the manuscript be considerably shortened. Many of us who have published considerable material have received these requests.

Occasionally, rather unusal things happen. I recall that many years ago a physician practicing in the State presented a flood of manuscripts for publication in the *Journal.* If we had published them all, one of his articles would have appeared monthly over a long period of time. The manuscripts were not especially well written, nor was the subject matter particularly interesting. He was advised to send some of his manuscripts elsewhere and he took the hint.

Mistakes do occur. I was guilty of making at least one. I had written an article for the *Journal* which concerned a tranquilizing agent, and when I gave the dose, the decimal system was employed. Unfortunately, I placed the decimal point in the wrong place so that the dose given was 10 times stronger than it should have been. It was published in the *Journal* just as I had given it. The drug company which produced the drug wired me and asked why I had used such a large dose. I could only confess that I had misplaced the decimal point. This taught me a lesson to be more careful in the future, and also to scrutinize all manuscripts in which the dose is given in the decimal system.

### Another Mistake

On another occasion, a miserable mistake in the *Journal* occurred. The editor had written an excellent editorial on a subject in which he was well versed, both by training and experience. For some unknown reason, the last paragraph was not published in the *Journal.* Unfortunately, the omission of this paragraph left the editorial quite flat. It seemed pointless to reprint the editorial, so nothing was done about the matter.

It seems to me that a state medical journal should welcome manuscripts dealing with the history of medicine in West Virginia—surely the state medical journal is an appropriate place for such essays. They would be classified as "Special Articles," and I think that many of our readers would enjoy them.

A few words concerning publication of editorials may be permissible. They presumably should cover various fields of medicine, as well as matters affecting the practice of physicians. Editorials may be used properly for commenting on some article appearing in the same issue of the *Journal,* especially if the article deals with a controversial subject. This frequently stimulates people to read the original article. In my judgment, only rarely should editorials be copied from other medical journals.

### Encourage Young Men

My views has always been to encourage young men to write for the *Journal,* but I must admit that my efforts have not been very successful. Young men should be urged to report interesting case histories; write letters to the editor, or even submit an occasional editorial. Surely, there are young men who write well, and they should be stimulated to do so. These young men, who have

been in practice for a relatively short time, have new ideas and suggestions—they should be allowed to present them.

I doubt whether my contribution to the *Journal* has been particularly outstanding, but modestly feel that throughout the years I have given considerable time and effort to it. For many years, for example, I wrote most of the scientific editorials, something less than 250 in number, and also contributed some "Special Articles." During my tenure, two surveys of the *Journal* were made and both showed, in the main, that the editorials were fairly well received, which naturally inflated my ego. Some of them had appeared in other medical journals and several had been published in newspapers.

On two occasions, I was asked by the Publication Committee to assume the editorship of the *Journal*, and in both instances I expressed my thanks, but respectfully declined. The first time I was asked the main reason I gave for declining the post was that I firmly believed that the editor should be a man in the active practice of medicine. The second time I was asked I gave the same reason, but added that I was too old and too old-fashioned to do a good job.

**High Type of Men**

I have always been impressed with the high type of men who have served, and are serving, on the Publication Committee. I doubt whether all of them wrote exceptionally well, but they were capable of evaluating manuscripts and also of judging whether they were of interest to our readers. I have never known an instance of any of the Editors requesting that a manuscript written by a colleague, a friend or an acquaintance be published. If any such instance occurred, I certainly am not aware of it. The Associate Editors, so far as I know, always supported the Editor. At any rate, I always have tried hard to do so.

On the whole, I have enjoyed my work on the *Journal* during my long tenure. It has been a pleasant and worthwhile experience, and I wish to thank the Publication Committee and the Council of the West Virginia Medical Association for their continuous confidence in me.

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*Anger is the sinew of the soul; without it a man would be lame.*

—Shelagh Delaney

# Medical Grand Rounds

**From the West Virginia University Hospital**

Edited By
*Irma H. Ullrich, M. D.*
*Associate Professor of Medicine*

## Sleep Apnea Syndromes

DISCUSSANTS:
EDWIN J. MORGAN, M. D.
*Associate Professor of Medicine.*
WILLIAM R. HOBBS, M. D.
*Assistant Professor of Medicine and Neurology.*

*Patients with the sleep apnea syndrome have daytime disabling hypersomnolence and are at risk from sudden death at night. In the fully developed syndrome, tracheostomy is the only treatment which is effective. Preventive measures such as weight control and stopping smoking are preferable modes of therapy.*

### Case Presentation

A forty-eight-year-old patient, Mr. M., presented with chronic bronchitis, polycythemia and hypersomnolence during the day, and loud snoring at night alternating with apneic spells.

*Doctor Morgan*:

For many years, neurologists and psychiatrists have been studying a peculiar group of patients who have apneic spells at night associated with hypoventilation ($\uparrow CO_2 \downarrow PO_2$). Most are obese. The syndrome has been studied extensively in patients with damaged or depressed respiratory centers in the central nervous system. Table 1 lists disorders which have been associated with sleep disturbances.

Pickwickian Syndrome, a term coined by Sir William Osler, has attracted attention of cardiac and pulmonary physiologists. In classic form, Pickwickian Syndrome includes: obesity, hypersomnolence during the day, sleep apnea with alveolar hypoventilation, and cor pulmonale.

Since 1965, this complex group of patients with sleep apnea has been studied intensively by neurologists and psychologists as well as cardiopulmonary physiologists in various sleep laboratories.

### Definitions

*Apnea*—Cessation of airflow at mouth and nose of at least 10 seconds' duration.

*Sleep Apnea Syndrome*—30 or more apneic episodes during seven hours of sleep (usually 300-400). Three Types: (1) Central Apnea: cessation of air flow through the nose and mouth; no thoracic or abdominal respiratory movements; (2) Upper Airway or Obstructive Apnea: no air flow through nose and mouth; persistent respiratory movements in chest/abdomen, and (3) Mixed Apnea: aspects of both.

### Signs and Symptoms

The two most suggestive clues in the history are daytime hypersomnolence and loud sonorous snoring at night. (Narcolepsy may be confused but has a distinctly periodic nature to sleepiness which is relieved by short nap.)

Hypersomnolence of sleep apnea syndrome is nearly always associated with obesity and periods of physical inactivity. (Narcolepsy is very often

**TABLE 1**

1. Brain Stem Infarction
2. Bulbar Polio
3. Cervical Cordotomy (for intractable pain)
4. Drug Overdose (barbiturates and tranquilizers)
5. Muscular Dystrophies
6. Kyphoscoliosis with Cor Pulmonale
7. Rarely: Primary Alveolar Hypoventilation, "Ondine's Curse"
8. Chronic Obstructive Pulmonary Disease and Patients with Congestive Heart Failure

associated with sleep paralysis, cataplexy and hypnagogic hallucinations.)

Frequently, the sleeping partner reports that the patient is a restless sleeper with periods of loud snoring and who appears to stop breathing for 20 seconds or more.

Abnormal behavior may be noted with sleep apnea syndrome. Jerking or flopping movements have been reported. Sitting bolt upright in bed, then collapsing has been noted. Sleep walking after apneic spells has also been reported.

Patients with sleep apnea will often report "foggy mind" in the morning. Fifty per cent have headaches in the morning with temporal and spatial disorientation. Distorted visual perception and occasional amnesia for the previous day may also occur.

Nocturnal enuresis occurs in older children or adolescents. Nocturnal seizures and also Stokes-Adams attacks have been reported.

In addition to abnormal behavior at night, during the day patients with sleep apnea are at risk for serious cardiovascular abnormalities, including sudden cardiac death.

### Diagnosis

The diagnosis can be made with certainty only by complete physiological evaluation in a sleep laboratory. This includes simultaneous monitoring of EEG, electro-oculogram, EKG as well as measurements of nasal air flow, and thoracic movements. Either arterial blood gases or $O_2$ saturation by ear oximeter should be monitored. Patients may have as many as 300 to 500 apneic episodes each night with a duration of 20 to 30 seconds each.

### Obstructive Apnea

Obstructive apnea is characterized by a flat nasal thermistor recording indicating no nasal air flow and a falling $O_2$ saturation with progressive sinus bradycardia. Abdominal and thoracic respiratory efforts, however, continue. After 30 seconds of apnea, the EEG records an arousal response, ventilation is resumed briefly, and $O_2$ saturation and heart rate return toward normal. The cycle then repeats itself.

In order to assess the hemodynamics in sleep apnea, Tilkian and others have performed cardiac catheterization monitoring in 12 patients with obstructive type of sleep apnea. All 12 patients were obese, with heavy snoring and disabling daytime sleepiness which occurred prior to the onset of obesity. Eight of the 12 had significant hypertension when awake.

During sleep, 10 of 12 patients had cyclic elevation of arterial blood pressure with each apneic episode (range 180 to 220 mm Hg systolic). These same 10 patients had pulmonary arterial pressure of 40 to 60 mm Hg. $PO_2$ fell below 50 mm in 8 patients; $PCO_2$ in the range of 45 to 60 did not show any consistent changes.

They concluded that cyclic upper airway obstruction during sleep may result in hypercapnia, acidosis and pronounced hypoxemia which can lead to hemodynamic abnormalities during sleep. Sustained pulmonary hypertension with cor pulmonale and possibly systemic hypertension may follow.

### Cardiovascular Abnormalities

There is presumed central nervous system dysfunction in sleep apnea which induces obstructive apnea during sleep, but this is poorly understood. Several observers have shown progressive collapse of pharyngeal walls associated with Müller maneuver (attempts to inspire with pharyngeal obstruction). There is then alveolar hypoventilation, progressive pulmonary hypertension and cor pulmonale.

Daytime somnolence (the most common complaint of these patients) may be secondary to the grossly disturbed sleep pattern with frequent arousals after apneic spells.

The systemic hypertension appears to be related to increased sympathetic discharge, vasoconstriction associated with hypoxemia and mild respiratory acidosis.

In addition to the hemodynamic abnormalities in adults with sleep apnea, cardiac arrhythmias are also known to occur and have been suspected as a cause of sudden death in Pickwickian Syndrome. Tilkian *et al* have used the Holter monitor in 15 patients to document arrhythmias associated with obstructive sleep apnea. They have shown: marked sinus arrhythmias, extreme sinus bradycardia (less than 30 beat/min), asystole lasting three to seven seconds, complex ventricular arrhythmias including ventricular tachycardia, and 2° A-V Block. While awake, these patients experienced only occasional VPCs.

Marked sinus arrhythmia is characteristic of sleep apnea and is frequently associated with life-threatening tachy- and bradyarrhythmias. Atropine is partially effective and tracheostomy highly effective in preventing these arrhythmias during sleep.

Primary dysfunction is assumed to be in the central nervous system in both central and obstructive apnea. Airway obstruction, hypoxia and mild respiratory acidosis combine to produce

alveolar hypoventilation. Vigorous inspiratory efforts against an obstructed airway lead to increased vagal response and sinus bradycardia associated with periods of sinus arrest and Wenchebach 2° AV block. After ventilation resumes, a loud snore usually occurs and there is marked decrease in vagal tone with sinus node acceleration. The increased sympathetic tone which is triggered by hypoxemia and acidosis probably contributes to sinus acceleration, and may well produce ventricular ectopic beats and ventricular tachycardia. Since the apnea cycle repeats itself every one to two minutes, this produces the marked sinus arrhythmia which is the hallmark of the sleep apnea syndrome. Tracheotomy normalizes the sleep pattern and abolishes most arrhythmias.

### COPD and Sleep Apnea

It has been shown that patients with chronic obstructive pulmonary disease have episodes of disordered breathing with hypoxemia both at night and during daytime naps. These patients, however, did not have daytime hypersomnolence and loud snoring at night, and this differentiates them from true sleep apnea syndrome. Six of seven patients had a significant fall in $O_2$ saturation (avg. 18 per cent) during sleep. These patients had occasional episodes of central apnea (five to 30/night), but most hypoxemia was due to slow or shallow breathing. The phrase, "auto resuscitative snore," has been used to describe the patient's return to a normal breathing pattern.

Cardiac arrhythmias also occur during sleep in patients with chronic obstructive pulmonary disease. These are to a great extent reversed by low flow $O_2$, which is an additional reason for use of $O_2$ at night in bronchitic patients with cor pulmonale. Nocturnal hypoventilation and hypoxemia have been postulated to be a reason for sudden nocturnal deaths and difficulty in weaning patients from respirators.

*Doctor Hobbs*:

### Central Nervous System Aspects

Doctor Morgan has described the cardiovascular and other physiological responses which characterize the syndrome of sleep apnea. These changes are considered to be secondary to central nervous system dysfunction. The choice of the term "dysfunction" to describe the process is a good one since no neuropathological changes have been demonstrated in the brains of those patients who come to autopsy. Two important questions are: (1) What is the central nervous system dysfunction or dysfunctions which lead to sleep apnea?, and (2) If it is some sort of brain disorder, how can a peripheral procedure, such as tracheostomy, prove curative?

The second question is easier to answer than the first. Actually, 95 per cent of sleep apneas are of the mixed type. In these patients, an initial period of complete absence of respiratory effort lasts several seconds. During this time, upper airway obstruction occurs. Respiratory efforts then occur against an obstructed upper airway. This obstruction is overcome and, with a snort or other sound, the patient resumes effective ventilation. Tracheostomy immediately relieves the peripheral component of the apnea, while the central component gradually resolves over the following few months. This implies that a tendency toward upper airway obstruction, as manifested by obesity, hypoplastic mandible, etc., may lead to apnea in those individuals with a "predisposed" central nervous system, and that this central effect, in turn, makes the peripheral component worse. Abolishing the peripheral component then, perhaps, ameliorates the central factor.

### Three Systems

But, again, what is the central nervous system component? A brief review of the neurophysiology of sleep-wakefulness states may help us to understand the problem. Three neurophysiological systems are thought to be important in the control of these rhythms. These are best thought of, not as specific nuclei or centers, but as networks of mutually interacting neuronal circuits.

1. WAKEFULNESS is maintained by high levels of activity in the reticular activating system, which projects from cells in the reticular formation of the brainstem through the nonspecific nuclei of the thalamus to all areas of the cortex accompanied by the characteristic electroencephalographic (EEG) patterns of wakefulness. We then are alert and attend to the environment.

2. Sleep (non-rapid-eye-movement (REM), slow-wave sleep) occurs when activity in the reticular activating system decreases. Cells in the median raphe nuclei of the brainstem, which project to higher centers and which secrete serotonin, are thought to mediate this process of slow-wave sleep. The person no longer attends to the environment, respiration and heart rate become slow and regular, motor activity decreases, occasional slow pendular eye movements are seen beneath the closed lids, and cortical EEG rhythms become slower and of higher voltage.

3. At approximately 90-minute intervals though the night, marked changes occur, signal-

ling the onset of REM (rapid-eye-movement sleep, paradoxical, dreaming). Cortical rhythms change to look like those of wakefulness; rapid, jerking eye movements occur beneath the closed lids (as if the patient were watching something), large variations in respiration and heart rate are seen, while motor movement and muscle tone, except for eye and respiratory muscles, decrease dramatically. A person awakened toward the end of one of these REM periods is much more likely to report dream content than one awakened at some other time during sleep. The system thought to mediate these striking changes involves two areas in the brainstem called the gigantocellular tegmental field (GTF) and the nucleus ceruleus (NC). GTF cells appear to be constantly liberating spikes unless inhibited by the nucleus ceruleus. It is the decreased inhibition of the nucleus ceruleus during REM-sleep which allows these GTF spikes to spread from their site of origin into many neurological systems, including (1) the extraocular motor nuclei, causing rapid eye movements; (2) the brainstem reticular formation, causing the changes in the cortical EEG, and (3) the occipital cortex, which may be related to the complex visual imagery (dreaming) reported by these patients upon arousal from REM sleep.

#### Control Systems Fail Occasionally

It should be apparent from this description that sleep-wakefulness rhythms are complex neurophysiological processes which involve many other organ systems. It is not surprising, then, that these control systems of the brainstem occasionally fail to produce the normal synchronous effects.

The most common example of this failure is the syndrome of Narcolepsy, which consists of four parts: (1) When the motor inhibition characteristic of REM-sleep occurs, instead, during wakefulness, we call it cataplexy; (2) When the motor inhibition occurs during arousal from sleep, we call it sleep paralysis; (3) Sudden onset of a REM-sleep period during wakefulness, without first going through NREM sleep, is called a sleep attack, and (4) The complex visual hallucinatory imagery characteristic of hypnogogic hallucinations may represent short periods of REM during changes in arousal (falling to sleep or waking up).

Sleep apnea, then, is another example of disharmony of sleep-wakefulness rhythms. Here, apnea occurs as the patient falls asleep. There are other examples of the fragility of respiratory patterns during sleep. Dolphins (Tursiops truncatus) never sleep in their natural habitat, and when loss of consciousness is induced through general anesthesia, they immediately cease all respiratory effort. Apnea during sleep has been postulated to be one of the main etiological factors in the sudden infant death syndrome (SIDS) and is here thought to be a developmental lag in the centers which control respiration. These centers are, of course, located in the brainstem, as are the centers which control sleep-wakefulness rhythms.

But no neuropathological abnormalities have been seen in patients who had sleep apnea during life or in infants who had SIDS. No focal findings appear on neurological examination. How else can we visualize the function of the brainstem?

#### New Technique

A new technique of recording potentials from the brainstem evoked by auditory clicks has reached the stage of clinical application only in the last year or so. Electrical activity recorded from surface electrodes, during the 10 milliseconds after a click stimulus is presented to the patient via earphones, is recorded and stored in a computer. Two thousand of these responses are then averaged and a wave form is displayed, which consists of the electrical activity which is time-locked to the auditory stimulus. Animal experiments and neuropathological correlations have demonstrated that the waves arise from the following areas in the brainstem:

| WAVE | *Generator* |
|---|---|
| 1 | Acoustic Nerve |
| 2 | Pontomedullary junction (cochlear nucleus) |
| 3 | Caudal pons (superior olivary complex) |
| 4 | Rostral pons |
| 5 | Midbrain (inferior colliculus) |

Waves 1, 3 and 5 are the most reliably recorded. Occasionally, a sixth and seventh wave, representing activity at higher levels, are seen. With proper technique, these wave forms are highly reproducible, and the latencies between waves are quite constant, in spite of large changes in hearing threshold.

The brainstem auditory evoked response (BAER) of the patient presented by Doctor Morgan was grossly abnormal in spite of the patient's hearing. Perhaps there is a disorder of the brainstem which leads to both sleep apnea syn-

drome and alterations in the brainstem-evoked response. Studies here of patients with chronic respiratory failure have also shown a high proportion of abnormal BAERs, implying again brainstem dysfunction in these patients.

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# Squid Harvested For Studies

A MARINE animal of major importance to neurophysiologists is being harvested by scientists in the Gulf of Mexico.

Certain species of squid, especially *Loligo pealei*, have been used since the 1930s in studies of nerve impulses and synaptic transmission. Yet these studies have been limited to the warmer months along the Atlantic Coast when the animals are migrating in nearby waters.

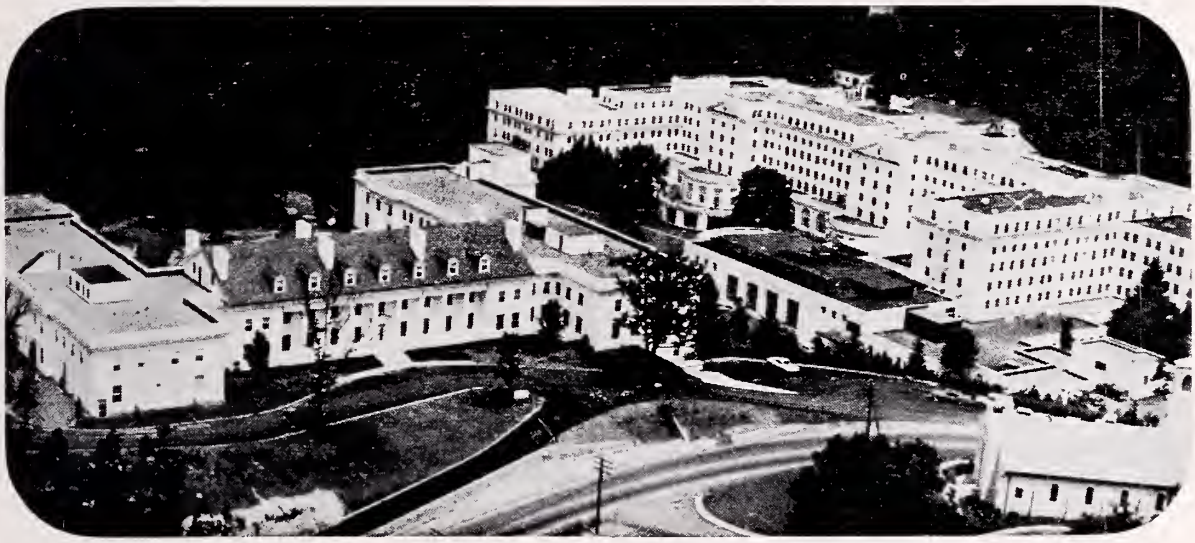
Now, researchers have located the above species and two others in the warm waters of the Gulf of Mexico, and they seem to be continuously available.

Realizing the scientific potential of having squid available year round to researchers, the Division of Research Resources at the National Institutes of Health began a project for catching and maintaining the animals. Support for the job was given to The University of Texas Marine Biomedical Institutes in Galveston.

112th ANNUAL MEETING

of the

# *West Virginia State Medical Association*



*The Greenbrier*

AUGUST 22-25, 1979

# PLAN NOW TO ATTEND

# *A message from . . .*

# *The President*

## A CALL FOR ASSISTANCE

SHORTLY after this issue of *The Journal* reaches you—specifically, on January 10—another regular session of the West Virginia Legislature will be under way. I have already alerted you to the fact that very important health matters will come up during the 60 days to end in mid-March. One of these will center about a proposal to put the state into the business of regulating institutional health care costs.

All of this means that I and others in the State Medical Association will be calling upon you for support and various kinds of help in coming weeks. Again, if you don't know the legislators in your home communities, please make a special effort to become acquainted with them, and to share views and opinions about matters of common concern.

The Medical Association's headquarters office once more will make every effort to stay abreast of the more than 1,600 bills which probably will be introduced, and to "flag" those of interest to our patients and the medical providers. But the real impact on the legislative process must come from solid information and input from the people back home.

I know I'll be able to count on you as we direct attention to particular bills and issues. We stand as the chief advocates of our patients, and we must never forget that.

Robert D. Hess MD.

ROBERT D. HESS, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

## LET'S GET THE FACTS

"The nation as a whole will spend 252 billion dollars in 1981 in health care and that money will pour into a system without cost controls, without quality controls, with uneven access to care and without any prospects for improvement."

This mouthful of loose, unsupported and largely plain incorrect assertions came from a source you might easily identify—Sen. Edward M. Kennedy, Democrat of Massachusetts. The paragraph appears early in a statement prepared by the Senator in support of his new national health insurance outline.

For the uninformed, or for those without access to the facts—and without time and inclination to dig out solid, balanced information—these words pack a real wallop. That is precisely why they are so difficult to counter, but why they MUST be challenged. Let's take the sentence apart.

Kennedy says we have a system without cost controls. Here, he chooses to ignore the one major effort by any single element of the economy to slow inflation. That is the Voluntary Effort Program designed by the American Medical Association, American Hospital Association and Federation of American Hospitals.

The Senator may choose to ignore or downgrade VE—and Health, Education and Welfare Secretary Joseph Califano might call the program a "sham, an imposter." But Carter Administration officials have done an about face in their attitude. Chairman Barry Bosworth of the White House's Council on Wage and Price Stability recently said that "the design of the Voluntary Effort addresses the unique problems of its own field better than any other effort the Council . . . has seen." On top of that, hard figures carried in previous *Journal* copy and elsewhere have documented that the VE Program is more than meeting its goals so far in reducing the increase in hospital costs.

Kennedy has said that the health care system is "without quality controls." He either is ignorant of, or again chooses to ignore, such medical audit standards as those, for example, of the Joint Commission on Accreditation of Hospitals and the Professional Standards Review Organization (PSRO) Statute. The latter is a creature of the Congress.

There are, of course, other quality efforts of increasing magnitude provided by dedicated medical staffs and others. One additional brief comment should be made about PSRO. If that program is not working, particularly in the quality control (medical care evaluation studies) areas, it's because the Federal Bureaucracy and in large measure the Congress won't let it work. They have devoted major attention to disproportionate regulatory measures centering about cost-containment (not cost-effective) issues, with little apparent concern for quality of care.

There is some truth to Kennedy's complaint about "uneven access to care." There are problems in such areas as distribution of physician services. But here, again, the Federal Bureaucracy threatens to upset some possibility of getting at such problems through the 1974 Health Planning Act. Specifically, busy-body agencies created by that Federal legislation easily can impose largely arbitrary social engineering standards of a statistical nature on the health care system. This approach represents a critical threat to any real grassroots input, and can wipe out entirely any real planning that takes into account *people* rather than figures.

The final Kennedy charge, that the health care system is "without any prospects for improvement," reflects, on its face, kindergarten intellect that would insult the intelligence of the village idiot. The Senator knows only too well—and he has publicly admitted—that the American system of medical care is the finest in the world. There are few, if any, other components of our complex society that can show equal progress in technology and quality of services provided the

people of this nation down through the years. There accordingly is no reason to dignify or belabor this point.

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**DEDICATION AND SERVICE**

An Associate Editor of *The West Virginia Medical Journal* for 40 years! For many, that would represent a lifetime in itself. But still going strong is one of the real stalwarts of medical journalism, Dr. E. J. Van Liere of Morgantown.

In a special article in this issue of *The Journal*, Doctor Van Liere recalls some of his experiences as a Publication Committee member and Associate Editor over four decades. He also offers some of his philosophy about selection and use of scientific articles. His thoughts are well worth your review.

His presentation likewise calls renewed attention to the Publication Committee, itself, and the significant responsibilities it has. To say that dedication is a key requirement for service is an understatement. Doctor Van Liere is so correct in singling out for sincere commendation the many physicians whose names have appeared on *The Journal's* masthead over its 74 years of existence.

For those who might have forgotten, the Publication Committee has seven members, appointed for overlapping seven-year terms by the Medical Association's Council. The Committee names its own Chairman, who is the Editor of *The Journal*. The Association's Executive Secretary serves as ex officio Committee Secretary, Managing Editor and Business Manager in charge of *Journal* advertising.

The Committee, under provisions of the Association's By-Laws, has sole jurisdiction over the scientific material and other matter submitted for publication, "and a majority decision shall be binding" in such matters. Often, that decision relative to whether a manuscript shall be accepted comes only after most careful and time-consuming deliberation, review of the literature and other work by Committee members.

Pride in their assignments, combined with compassion and understanding for, and of, those who submit scientific papers for their review, has been a hallmark among Committee members down through the years. In the recent past, in particular, the Committee has gone to great lengths to encourage more, and better, submissions of scientific manuscripts. This brings some problems as well as assets, because it's possible to use only a few papers each month, and a backlog sometimes discourages physician authors.

Doctor Van Liere understands these things perhaps better than anyone. He has been, as he has noted, a frequent contributor of editorials along with his authoritative and thorough attention to manuscripts submitted to him for review.

His personal dedication, interest and unselfish attention to the responsibilities handed him should stand as a significant example not only for present and future colleagues on the Publication Committee, but for the medical community as a whole. His service to *The Journal* certainly has not, in Doctor Van Liere's case, been unique. But it has been a most fitting and truly outstanding part of a distinguished professional career.

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**CONFERENCE TIME**

January is more than the first month in a new calendar and fiscal year for the West Virginia State Medical Association. It's also the time for a new regular session of West Virginia's Legislature (Dr. Robert D. Hess has some comments on that in his President's Message); and for another Mid-Winter Clinical Conference.

For the past several months *The Journal* has carried detailed information as to the program for this 12th annual continuing medical education week end, again set for Charleston January 26-28.

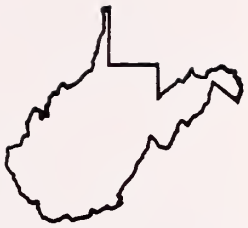
Once more, the Program Committee has worked to put together scientific offerings of practical value to the practicing physician as he works his way through his daily patient load around the state.

The acceptance of, and attendance at, the Mid-Winter Conference have given it stature as the Association's top medical education endeavor. Joining in sponsorship are the West Virginia University and Marshall University Schools of Medicine.

We've noted before that the Conference has come a long way from its beginning as a Sunday afternoon program on diseases of the chest held in a conference room at a Charleston hospital.

It will, and needs to, continue to grow. It's scheduled late in January because that's when those who have supported it so well want it to be held. Each year, there are new faces among those in attendance. The Medical Association's leadership trusts that will be true again this year. All of you have received registration forms either through *The Journal* or a recent membership mailing. We hope to see you January 26.

# GENERAL NEWS



## Cardiologists, School Activities Chief Conference Speakers

Addresses by two Charleston cardiologists and the chief executive officer of the West Virginia Secondary School Activities Commission, completing the program for the 12th Mid-Winter Clinical Conference, have been announced by the Program Committee.

Speaking during the Saturday afternoon, January 27, session on "Coronary Artery Disease" will be Drs. Stafford G. Warren and William H. Carter, while Sam Williams of Parkersburg, Executive Secretary of the West Virginia Secondary School Activities Commission, will talk on "Youth in Action" during the Saturday evening dinner session.

Stafford G. Warren, M. D.

The conference will begin Friday afternoon, January 26, and conclude at noon on Sunday, January 28, in Charleston at the Holiday Inn Charleston House, with scientific sessions scheduled Friday afternoon, Saturday morning and afternoon, and Sunday morning. All scientific sessions will be held in the Wertz Ballroom.

Sponsored by the State Medical Association and the West Virginia and Marshall University Schools of Medicine, the conference also will include a Friday evening physicians' session, a concurrent Friday evening public session and, as noted above, the Saturday evening dinner session (preceded by a cash bar).

William H. Carter, M. D.

Sam Williams, M. A.

During the "Coronary Artery Disease" session Saturday afternoon, Doctor Warren will speak on "Coronary Bypass Surgery at Charleston Area Medical Center," while Doctor Carter's subject will be "Medical and Social Problems Following Bypass Surgery."

The remaining speaker for this session, as announced previously, will be Dr. John C. Norman of Houston, Texas, whose talk will be entitled, "Coronary Artery Medicine and Surgery: Concept and Controversy." Doctor Norman, a native of Charleston, is a Cardiovascular Surgeon at the Texas Heart Institute, and Clinical Professor of Surgery (Cardiothoracic), University of Texas Health Sciences Center, Houston.

Presiding at this session will be Dr. Robert J. Marshall of Huntington.

### New York City Native

Doctor Warren is a member of the active staff of Charleston Area Medical Center, and is Clinical Associate Professor of Medicine, WVU School of Medicine. He is certified in Internal Medicine and Cardiology, and is a Fellow of the American College of Cardiology.

A native of New York City, Doctor Warren completed undergraduate and graduate studies at Davidson College and Wesleyan University, respectively, receiving his M. D. degree in 1969 from the University of Rochester (New York). He did graduate work at University Hospitals of Cleveland, and completed a fellowship in Cardiology at Duke University.

Doctor Warren was the recipient of a research grant from medical associates (CAMC) for a CPK Isoenzyme study in October, 1975, and is the author or co-author of some 12 scientific articles.

### On CAMC Staff

Doctor Carter is in the private practice of cardiology in Charleston and also is a member of the active staff of the Charleston Area Medical

Center. A Clinical Professor of Medicine, WVU School of Medicine, Doctor Carter is certified in Internal Medicine and Cardiology. He is a consultant for Herbert J. Thomas Memorial Hospital in South Charleston and Kanawha Valley Memorial Hospital in Charleston.

A native of Virginia, Doctor Carter received his undergraduate education from the University of Virginia and the University of Edinburg, earning his M. D. degree in 1963 from the University of Virginia Medical School. He took graduate training at Bellevue Hospital and Columbia Medical Center in New York City and at Duke University where he completed a fellowship in Cardiology and then served as Instructor in Cardiology (1968 to 1970).

Doctor Carter is a Fellow of the American College of Cardiology and the Council of Clinical Cardiology, and is President Elect of the West Virginia Heart Association.

**Football Official**

Williams was Assistant Executive Secretary of the Secondary School Activities Commission for seven years before assuming his present position three years ago.

He is a former teacher, coach and principal, and has been a football official for 25 years—11 in the Mid-American Conference.

Williams was a teacher and coach at Wirt County High School for five years, and then Principal for 10 years. He also was Principal of St. Marys High School for five years.

He is a graduate of Glenville State College, received his M. A. degree from WVU, and has done graduate work at Ohio University.

Williams is married to the former Jane A. Hardman of Spencer, and they are the parents of two children.

Dr. Ralph H. Nestmann of Charleston, Co-Chairman of the 12th Mid-Winter Clinical Conference, will preside at the Saturday evening dinner session during which Williams will speak. As noted, a cash bar, beginning at 7 P. M., will precede the dinner gathering, both of which will be held in the Hutchinson Ballroom.

The continuing medical education event is approved for 12 credit hours in Category 1 of the American Medical Association Physician's Recognition Award—and also is acceptable for 12 prescibed hours by the American Academy of Family Physicians.

In addition to the Saturday afternoon and evening sessions, as described above, here is the remainder of the conference program:

**Friday Afternoon**

The conference will begin at 2 P. M. on Friday with opening remarks by Dr. Robert D. Hess of Clarksburg, President of the State Medical Association.

Presiding at the opening session, "Physical Fitness, Obesity and Diet Therapy," will be Dr. Alfred K. Pfister of Charleston, WVU Clinical Professor of Medicine.

The speakers and their topics will be "Overuse Syndromes in the Recreational Athlete"—Fred L. Allman, Jr., M. D., The Sports Medicine Clinic, Atlanta; "Our Overgrown Children"—Ruth C. Harris, M. D., Professor and Chairman of Pediatrics, Marshall University School of Medicine, and "Management of Triglycerides"—Frederick J. Stare, M. D., Professor of Nutrition, Harvard University School of Public Health.

**Friday Evening**

Concurrent sessions, as noted, will be held at 8 P. M. Friday. Dr. Harry S. Weeks, Jr., of Wheeling, President of the West Virginia Medical Institute, Inc., will preside at the physicians' session, to be held in the Dodson Room.

The speaker will be Dr. Richard H. Egdahl of Boston, Director, Boston University Health Policy Institute; Academic Vice President for Health Affairs, Boston University; Executive Vice President, Boston University Hospital, and Director, Boston University Medical Center. His topic will be "A Progress Report on Fee-for-Service HMOs."

The concurrent public session on "Physical Fitness, Obesity and Diet Therapy" will be held in the Wertz Ballroom, with Doctor Pfister again presiding. The Friday afternoon speakers will be doubling as speakers for this session also, with Doctor Allman talking on "Physical Fitness: Facts and Misconceptions;" Doctor Harris, "Our Overgrown Children," and Doctor Stare, "Panic in the Pantry."

**Saturday Morning**

"Current Practices in Immunization" will be the title of the Saturday morning session beginning at 9:30 A. M.

Speaking on "Influenza Virus Vaccines" will be Ronica M. Kluge, M. D., Associate Professor of Medicine and Chairman, Division of Infectious Diseases, WVU School of Medicine, Morgantown; "Live Viral Vaccines"—Robert B. Belshe, M. D., Associate Professor of Medicine and Chief, Section of Infectious Diseases, Marshall University School of Medicine, and "Bacterial Vaccines"—Lee P. Van Voris, M. D., Assistant Professor of Medicine, MU School of Medicine.

Dr. Maurice A. Mufson, Chairman of the Department of Medicine at MU School of Medicine, will preside.

**Sunday Morning**

The topic of discussion for the 9:30 Sunday morning session will be "Current Concepts in Hematology." Dr. Robert H. Waldman, Professor and Chairman of Medicine, WVU School of Medicine, Morgantown, will preside.

Speaking at this concluding session will be Peter C. Raich, M. D., Professor of Medicine and Chairman, Division of Hematology-Oncology, WVU, Morgantown, on "The Anemia of Cancer;" David P. Lee, M. D., Charleston Area Medical Center (Internal Medicine-Hematology/Oncology), and Clinical Associate Professor of Medicine, WVU, "Complications of Chemotherapy," and Mabel M. Stevenson, M. D., Medical Director, Tri-State Red Cross Blood Center, Huntington, "Current Use of Blood Products."

**Exhibits, Other Information**

Exhibits and displays by voluntary health agencies and medical textbook publishers may be viewed during the entire conference in the Copenhaver Room.

Held in conjunction with the conference will be a dinner meeting of the Board of Directors of the West Virginia Chapter, American Academy of Family Physicians, at 6:30 P. M. on Thursday, January 25, at the Holiday Inn Charleston House, and a breakfast meeting of the Cancer Committee of the State Medical Association at 8 o'clock Sunday, January 28, in the Dining Room.

Exhibits and other related meetings will be listed in a program insert at the time of the conference.

A registration fee of $25 for the entire conference, including the Saturday evening dinner, will be charged to all registrants except nurses, medical students, interns and residents.

All extra tickets (not included in the registration fee) for the dinner session Saturday must be purchased by 10 A. M. on that day. Such tickets ($7.50 each) would include those for spouses and other guests—and for nurses, medical students, interns and residents.

These tickets will be available at the registration desk beginning with registration Friday afternoon.

All other registrants paying the $25 fee will receive their dinner tickets when they register at the conference.

For overnight accommodations, physicians should communicate directly with the reservation manager of the hotel or motor inn of their choice. The conference headquarters hotel is setting aside rooms for registrants, and a reply card for accommodations at the Holiday Inn Charleston House will be forwarded to physicians who register in advance.

Serving on the Program Committee with Doctor Nestmann are Dr. Joseph T. Skaggs of Charleston, Co-Chairman, and Drs. William O. McMillan, Jr., also of Charleston; Maurice A. Mufson, Huntington; Robert L. Smith, Morgantown, and C. Carl Tully, South Charleston.

## Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1979, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

| | | |
|---|---|---|
| Mar. 23 | Charleston | Sixth Annual Newborn Day |
| April 6, 7 | Morgantown | Cancer Teaching Days |
| April 15 | Wheeling | Pediatrics Seminar |
| April 20, 21 | Morgantown | Internal Medicine Days |
| May 10, 11 | Morgantown | Health Officers Seminar |
| May 19 | Wheeling | Seminar on Surgical Problems |

## Association Council Endorses Restraints on Costs

The Medical Association's Council endorsed, at its November 18 meeting in Charleston, national and state voluntary efforts to slow increases in medical and other health care costs.

A resolution adopted by the Council supported a call by Dr. Tom E. Nesbitt of Nashville, Tennessee, President of the American Medical Association, "for physicians to help moderate increases in medical care costs by using appropriate restraints to keep fee increases more nearly in line with the annual increase in cost of living . . . "

The resolution also put the Medical Association on record as endorsing "the Voluntary Effort as a responsible private-sector activity to restrain increases in hospital costs without arbitrary limits or government intervention."

(Appearing elsewhere in this issue of *The Journal* is the complete text of the resolution.)

In other action, the Council:

—Approved an operating budget, exclusive of medical scholarship expenditures, of $343,799.91 for the Association's 1979 calendar and fiscal year.

—Elected to retired membership status Drs. Gilbert A. Ratcliff of Huntington and Donald P. Brown of Kingwood.

—Voted honorary membership status for Drs. Roland J. Viger of Nero Beach, Florida (formerly of Huntington); Gates J. Wayburn, Huntington; George W. Easley, Clarksburg; Jack Basman and W. F. Work, both of Charleston; Wyson Curry, Montgomery; Frank R. Jamison, Logan; C. Leonard Brown, Point Pleasant, and Archbold M. Jones, Parkersburg.

—Re-elected Dr. John M. Hartman, Charleston, to a new seven-year term as a member of the Publication Committee.

—Re-elected as nucleus members of the Board of the West Virginia Medical Political Action Committee Drs. Stephen D. Ward of Wheeling, First Congressional District; N. B. Groves, Martinsburg, Second District; Joseph T. Skaggs, Charleston, Third District, and Frank J. Holroyd, Princeton, Fourth District. Dr. Jack Leckie of Huntington, the Association's Junior Councilor, and Charles R. Lewis, the Association's Executive Secretary, were re-elected as ex officio members of the Board.

—Approved, at the request of Dr. Robert D. Hess of Clarksburg, the Association's President, appointment by Doctor Hess of ad hoc committees to study the feasibility of acquiring property as a permanent Association headquarters; and to establish a program for impaired physicians.

—Approved a request to the Administration of Gov. John D. Rockefeller IV that it consider returning to long-established precedent by seeking nominations from the Association for such appointive positions as those on the Medical Licensing Board of West Virginia.

—Reviewed provisions of a health care cost review bill being prepared by state legislative committees for consideration during the 1979 regular legislative session to begin January 10.

—Discussed proposed administrative and legislative changes in the State Workmen's Compensation Fund, including a bill to provide by law an employer-employee-medical provider advisory committee for the Compensation Commissioner; and continued consideration of establishing a full-time Medical Director position for the Fund.

Reviewed continued developments in second opinion programs; and in health planning activity in West Virginia, including physician participation in work of several plan development task forces of the West Virginia Health Systems Agency, Inc.

## Here's Complete Resolution On Cost Moderation

Here is the text of a resolution adopted by the Medical Association's Council at a Charleston meeting on November 19 relative to efforts to moderate increases in medical and other health care costs:

"WHEREAS, Increases in the cost of medical care are real and continuing, causing concern by individuals, families, business, government and physicians; and

"WHEREAS, Much of the increase in cost is caused by new technology and treatment methods which result in better care, prolonged life or a better quality of life; and

"WHEREAS, Other important factors causing the increases in costs are government regulations, higher labor, energy and malpractice costs and general inflation; and

"WHEREAS, the American Medical Association, American Hospital Association and Federation of American Hospitals late in 1977 created the Voluntary Effort aimed at moderating increases in hospital charges which have already begun to moderate; and

"WHEREAS, Tom E. Nesbitt, M. D., President of the American Medical Association, called on physicians in his inaugural addiess to use similar restraint in their fee increases;

"BE IT RESOLVED, That the West Virginia State Medical Association endorse the call by AMA President Tom E. Nesbitt, M. D., for physicians to help moderate increases in medical care costs by using appropriate restraints to keep fee increases more nearly in line with the anual increase in cost of living; and

"BE IT FURTHER RESOLVED, That the West Virginia State Medical Association endorses the Voluntary Effort as a responsible private-sector activity to restrain increases in hospital costs without arbitrary limits or government intervention."

## Physicians Granted Membership In Specialty Groups

A number of West Virginia physicians who recently have been named to membership in various specialty organizations have been reported to *The Journal.*

Named Fellows of the American College of Surgeons were four Morgantown physicians, Drs. C. Andrew Heiskell, Ellen E. Hrabovsky, Jerome G. Johnson and Paul F. Malone.

Dr. Harvey A. Martin of Lewisburg was named a Fellow of the American Academy of Family Physicians.

Named Fellows of the American College of Chest Physicians were Drs. Michael B. Howie of Morgantown and Jamal H. Khan and Mohammad Z. Khan, both of Charleston.

Dr. Charles A. White, Jr., Professor and Chairman of Obstetrics and Gynecology at West Virginia University School of Medicine, has been elected to a three-year term on the Board of Trustees of the Central Association of Obstetricians and Gynecologists. Dr. Donald W. Cox, WVU Associate Professor of Obstetrics and Gynecology, was named to membership in the Association.

# *Review A Book*

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Current Obstetric & Gynecologic Diagnosis and Treatment, 2nd Edition,* by Ralph C. Benson, M.D. 976 pages. Price $18. Lange Medical Publications, Los Altos, California 94022. 1978.

*The Metabolic Management of the Critically Ill*, by Douglas W. Wilmore, M. D. 262 pages. Price $22.50. Plenum Publishing Company, New York, New York 10011. 1977.

*Medicine in Kentucky*, by John H. Ellis. 96 pages. The University Press of Kentucky, Lexington, Kentucky 40506. 1977.

*Surgeon Under the Knife* (paperback), by William A. Nolen, M. D. 221 pages. Price $1.95. Dell Publishing Company, Inc., 1 Dag Hammarskjold Plaza, New York, New York 10017. 1977.

## Cabell County Society Endows Esposito Lectureship

The Cabell County Medical Society has endowed a lectureship at the Marshall University School of Medicine in honor of Dr. Albert C. Esposito, Huntington ophthalmologist.

"Doctor Esposito not only has distinguished himself in the medical field, but also has worked diligently to bring the MU Medical School to fruition," said Dr. William J. Echols of Huntington, Society President, in announcing the endowment. "We can think of no better way to honor his efforts," Doctor Echols added. The lectureship fund has been "seeded" with approximately $2,000 from the Society, and contributions from others are encouraged, according to Doctor Echols.

The Dr. Albert C. Esposito Lectureship will provide a broader educational experience for student physicians, while also providing a continuing education experience for community physicians, through lectures by distinguished medical personnel.

## Medical Events In 1978 Reviewed By AMA

Preventive medicine moved to the front of the American health care scene in 1978, observed the American Medical Association in a review of medical events for the past year.

Public leaders everywhere were talking about the need for programs aimed at preventing disease, in addition to caring for the sick.

Few agreed on a definition of preventive medicine. Many said that it means immunizations, regular vigorous exercise, keeping weight down to normal, no smoking, a sensible diet, proper rest and recreation. Mostly, these involve decisions on life style that are the prerogative of the individual rather than his doctor.

There were indications that at least some of the people were doing at least some of these good things. Deaths from heart disease continued to drop, probably reflecting the adoption of life habits to reduce risk on the part of many Americans. Many Americans still smoked, but many were quitting. Setting an example for their patients, doctors (surveyed at mid-year) indicated that only 18 per cent of the medical profession continues to use tobacco.

### Environmental Medicine

Along with a new emphasis on preventive medicine came a growing interest in environmental medicine—the things in the environment that may cause disease. Many substances were implicated as possibly causing cancer. Nitrite in food was a late candidate. Emphasis was on disease-causing substances in the work place, the air, the home and on the grocery shelf. There was a tendency to lose sight of the fact that many of the environmental hazards are just a part of life. For instance, the single major cause of skin cancer is sunlight. And sexual intercourse is the single major cause of cancer of the cervix.

In 1978 came the test tube baby, the still unsubstantiated claim of a baby born by cloning, and further bits and pieces of new data in cancer, diabetes and other common ills. Obesity, its health hazards, and what to do to lose weight continued to demand a great deal of time in the health care sector.

In the socio-economic areas of medicine, concern over rising costs of care continued to dominate discussion and debate. The Voluntary Effort to contain cost escalation in hospitals by the American Medical Association, the American Hospital Association, and the Federation of American Hospitals was beginning to take effect. The rate of increase dropped substantially in 1978.

## *Medical Meetings*

Jan. 4—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

Jan. 15-16—International Glaucoma Congress, Las Vegas.

Jan. 15-16—International Congress of Cardiovascular Disease & Surgery, Las Vegas.

Jan. 15-18—Dept. of Anatomy, MCV (Alton D. Brashear PG Course in Head & Neck Anatomy), Richmond.

Jan. 26-28—12th Mid-Winter Clinical Conference, Charleston.

Jan. 27-31—Am. College of Allergists, San Francisco.

Feb. 23-24—Va. Chap., Am. Academy of Pediatrics, Williamsburg.

Feb. 23-27—Biofeedback Society of Am., San Diego.

March 1—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

March 7-9—Nurses Assn. of Am. College of Obstetricians & Gynecologists, Chicago.

March 11-15—Am. College of Cardiol., Miami Beach.

March 22-29—Am. Society of Clinical Pathologists, New Orleans.

March 24-28—Am. Academy of Allergy, New Orleans.

March 30-April 1—W. Va. Chap., AAFP, Charleston.

March 31-April 1—Am. Otology Society, Los Angeles.

April 2-5—ACS, Denver.

April 3-4—Am. Broncho-Esophagological Assn., Los Angeles.

April 22-25—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 23-28—Am. Academy of Neurology, Chicago.

April 26-29—ASIM, New Orleans.

May 12-17—Ohio State Med. Assn., Columbus.

May 13-17—Am. Urological Assn., New York.

May 24—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

July 21-26—AMA Delegates Summer Meeting, Chicago.

**Aug. 22-25—112th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.**

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 30-Oct. 2—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 22-26—ACS, Chicago.

The West Virginia Medical Journal

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## Review Article

# The Preventive Treatment Of Asthma

EDWIN J. MORGAN, M. D.
*Medical Director, University Health Service, and Associate Professor of Medicine, Pulmonary Division, West Virginia University School of Medicine, Morgantown.*

*Drugs are the mainstay of treatment in the control and prevention of asthma. Recently, drugs that are relatively safe and capable of preventing asthmatic attacks have become available. It is now possible for us to direct our efforts toward prevention of asthma with therapeutic, as well as environmetal, measures.*

All of us who practice in a primary care setting have asthmatic patients under our care. The prevalence of asthmatic patients in the population is roughly 10 per 1,000, or about one per cent. For children and adolescents it is higher—about five per cent.[1] Asthma is among the leading causes of lost time from school and work. Our aim in managing the asthmatic patient clearly is to keep the patient functional at work or in school and out of the hospital. To do this we must *reverse acute attacks, prevent further attacks and maintain normal airway function.* Although there can be little argument about these aims, in actual practice the complex multifactorial nature of the disease and the potential complications of drug therapy have caused most of us to concentrate on treating acute attacks rather than preventing them.

In the past, prevention has been attempted by changing the patient's environment and perhaps by hyposensitization or immunotherapy. There is no question that asthma can sometimes be prevented by avoidance of a particular antigen, but the value of immunotherapy remains controversial.[3] A recent study of asthmatic patients, all ragweed-skin-test positive, showed only 13 of 29 patients had symptoms that correlated with ragweed pollen counts. Apparently, even simple autumnal asthma is a multifactorial disease.[2]

It is thus evident that in the control and prevention of asthma, drugs are the mainstay of treatment.

### Drugs for Treatment

Recently, drugs that are relatively safe and capable of preventing asthmatic attacks have become available. It is now possible for us to direct our efforts toward prevention of asthma with therapeutic, as well as environmental, measures. The drugs that can be used to prevent attacks are cromolyn sodium, the relatively specific beta-2 sympathomimetic aerosols, and topical corticosteroids.[4]

*Cromolyn sodium.* Inhaled as a powder, the drug is effective in preventing attacks triggered by allergens as well as hyperventilation or exercise. It probably acts by stabilizing mast cells in the bronchial mucosa of the lungs.[5] This drug has dramatically improved the lives of thousands of children and young adults, many of whom can be kept symptom-free on this drug alone. It is less effective in older patients, particularly those who have bronchitic symptoms. A therapeutic trial under optimal conditions of regular administration for at least one month, started when the patient is free from acute airway obstruction, is necessary before concluding that the drug is ineffective for a given patient.

*Beta-2 sympathomimetic aerosols.* The relatively specific beta-2, long-acting sympathomimetic drugs were introduced for treatment of acute attacks and are available in oral, injectable and aerosol forms. Recently, it has been shown

that these aerosols almost completely block exercise-induced asthma for up to four hours.[6] The tablets are much less effective in preventing exercise-induced bronchospasm, even though they produce optimal bronchodilitation. Metaproterenol sulfate, salbutamol and terbutaline aerosols (the latter two are not yet available in the United States) have an important role in preventing, as well as treating, acute attacks.[4] Many patients with attacks not controlled by cromolyn sodium become asymptomatic with the addition of metaproterenol aerosol used regularly. There are at least 14 relatively specific beta-2 aerosols available, and their properties have been evaluated in a concise review.[7]

*Steroid aerosols.* Beclomethasone is the topical corticosteroid that has had the longest use. It is used as an aerosol in patients whose attacks are not prevented by the drugs mentioned above. It does not cause the side effects of long-term, oral steroid therapy. The action of the drug is not clearly understood. but it is postulated that it stabilizes the membranes of bronchial mast cells. It is *not effective* in acute attacks.

A treatment program consisting of cromolyn sodium, a beta-2 sympathomimetic aerosol and belcomethasone, inhaled into the lungs 4x/day prevents attacks in the majority of patients, even those with severe asthma.[4] Some patients continue to need oral steroids, and many will have attacks if they have an upper respiratory infection. Long-term preventive therapy of this kind allows lung function to return toward normal.

### Side Effects

The potential side effects of these drugs are few. Mild irritation of the throat occasionally occurs with cromolyn sodium. The rare bronchial spasm produced by inhalation of the powder can usually be prevented by premedication with a beta-2 sympathomimetic aerosol.

Metaproterenol sulfate is not as specific for beta-2 receptors, nor is it as long-acting as some of the newer agents,[7] but it has very few side effects. It has been used world-wide for many years, and presently is the only relatively long-acting beta-2 specific aerosol available in the United States. The aerosol dose of 1.5 mg (2 puffs) is much less than the comparable oral dose of 20 mg, and is less likely to be associated with the rare side effects of mild tremor and/or tachycardia. Many of the hazards previously attributed to aerosols arose with the use of isoproterenol, which is neither beta-2 specific nor long-acting, and no longer has a place in the rational management of asthma.

The main side effect of beclomethasome is monilial throat infection, which causes no symptoms in most patients, or can be treated easily with topical antifungal agents.

For these drugs to be maximally effective the patient must understand their usage and know how to take them properly. With metered aerosols this takes instruction and practice. Patients must also understand that if they have an attack or an upper respiratory infection these drugs may be less effective or last for a shorter time. Much of the opposition to aerosol drugs is based on suspicion of potential problems rather than documented evidence of ill effects. The hazards of overdosage are quite unfounded, and can be prevented by careful patient instruction on the action and use of these drugs. The current evidence suggests that under-treated bronchospasm is more detrimental to the patient with asthma than the side effects of these drugs.

### Oral Therapy

For those individuals who are unable to use aerosols, theophylline preparations, metaproterenol and terbutaline can be used as effective prophylactic treatment. The use of theophylline preparations has been put on a much firmer foundation as knowledge of their clinical pharmacology has expanded and blood level measurements have become available. The therapeutic range is 10-20 mg/liter for theophylline with variable efficacy below 10 mg/liter and increasing toxicity above 20 mg per liter; unfortunately, the oral dose of theophylline, which is adequate to produce a therapeutic blood level (400 mg Aminophylline), is often associated with nausea, tremor, dizziness and nervousness. Theophylline blood levels are useful in monitoring the severely-ill patient and as a research tool, but their role in the ambulatory setting has yet to be determined.[10]

Wolfe *et al* have provided data that will help to provide a rational basis for oral therapy in the ambulatory patient with asthma. Their careful studies support the following therapeutic plan: base line therapy in mild asthma can be started with either a low dose of a sympathomimetic amine (terbutaline 2.5 mg. or metaproterenol 10 mg) or a relatively low dose of theophylline (aminophylline 200 mg. or the equivalent). If symptoms are controlled but there are side effects, the first drug tried should be stopped and the alternative prescribed. If the symptoms are not readily controlled, both preparations should be given in the lower dose. If the patient continues to have symptoms, higher doses of both

agents may be used, with risk of side effects, or small doses of oral corticosteroids may be used.

Another important concept of guiding the preventive therapy of asthma is that airway obstruction, as measured by pulmonary function tests, lasts much longer than either the symptoms or physical signs would suggest.[11] A convenient, relatively inexpensive, objective and non-invasive guide to therapy of asthma in the ambulatory setting is measurement of peak expiratory flow using the instrument designed by Wright and McKerrow.[12]

With more information about therapy and the basic mechanism of asthma becoming available, we are now able to plan a rational and individualized preventive treatment program for each patient with minimal risk and substantial expectation of success.

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## And Now For A Quiz On The Material Presented Above!

(Answers on Page xviii)

TRUE or FALSE

1. Cromolyn sodium prevents asthmatic attacks by lowering airways resistance.
True_____ False_____

2. Ragweed pollen is the only cause of wheezing attacks in autumnal asthma.
True_____ False_____

3. Beclomethasone is thought to prevent asthmatic attacks by stabilizing the membranes of mast cells. True_____ False_____

4. Theophylline, Metaproterenol and terbutaline are all effective oral drugs in preventive treatment of asthma. True_____ False_____

5. Isuprel is a beta-2 specific long-acting aerosol useful in treatment of asthma.
True_____ False_____

6. Theophylline blood levels of 20 mg/liter or above are often associated with nausea, tremor and dizziness. True_____ False_____

7. Terbutaline and aminophylline is an effective oral combination which relieves bronchospasm with minimal risk from side effects.
True_____ False_____

8. The office "match test" is an effective guide to the preventive treatment of asthma.
True_____ False_____

9. Terbutaline is the drug of choice in preventing exercise-induced asthma.
True_____ False_____

10. Our aim in managing the asthmatic patient is to keep him functional at work or in school and out of the hospital.
True_____ False_____

# Pushing Technique And The Duration Of The Second Stage Of Labor

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*This study seeks to examine the relationships of pushing techniques and the duration of the second stage of normal labor. It also explores the area of prenatal education and the effectiveness of prenatal training for expulsion.*

In the labor and delivery rooms of any hospital, the word "push" has almost universal usage as the birth attendants seek to assist the laboring woman to effect delivery of her child. But, when the mother is instructed to "push," what is it that she is to do? How can she be asisted or how can she assist herself to get maximum benefit for herself and for her child from her expulsive efforts?

It is apparent that there is confusion among obstetric personnel regarding direction of maternal efforts for expulsion. The pushing effort has been described as a purely reflex act.[1] Mothers have been instructed to bear down as if to defecate.[2] Other women have been trained prenatally to utilize coordinated body movements to aid delivery.[3] But which is the most effective and safest way? How should the woman be instructed? What nursing intervention should be employed to assist mother and child?

When labor and delivery progress normally with no pathogenic factors present it is logical that those women who use the most effective pushing technique will have the shortest duration of the second stage of labor. It is during this stage of labor that the behavior and activity of the mother can and does affect the movement of the infant towards birth. If the second stage of labor is shortened, the mother, of course, diminishes the duration of the stresses of labor for herself. The infant will spend less time in the birth canal and be less subject to mechanical trauma and hypoxia.[4] Thus, the physical safety of mother and child are factors to be considered and are of immediate concern to those responsible for the care of mothers and their infants.

It is hoped that the data gathered and analyzed in this study will help to inform and guide the obstetric personnel in their management of maternal expulsion efforts in the second stage of labor. But, most importantly, it is hoped that the knowledge gleaned through this study will be of service in safeguarding the physical and emotional safety of mothers and their babies.

### Materials

The purposes of this study are (1) to observe the effect of diaphragmatic, abdominal-vaginal pushing technique upon the duration of the second stage of normal labor, (2) to assist in informing obstetrical staff as to the most effective and efficient means of maternal pushing for the second stage of labor, (3) to observe the actual physical application of pushing techniques learned prenatally to the second stage of labor, and (4) to evaluate the effectiveness of these techniques and the ability to apply them. Four groups — A, B, C, D — are used in this study. Group A consists of 10 primigravidae who have attended prenatal classes and who use diaphragmatic, abdominal-vaginal pushing technique for the second stage of labor. Group B consists of 10 primigravidae who do not use diaphragmatic, abdominal-vaginal pushing technique for the second stage of labor. Group C consists of 10 multigravidae who have attended prenatal training classes and who use diaphragmatic, abdominal-vaginal pushing technique for the second stage of labor. Group D consists of 10 multigravidae who do not use diaphragmatic, abdominal-vaginal pushing technique for the second stage of labor. Comparisons were made between groups A and B, all primigravidae, and between groups C and D, all multigravidae. The four groups were observed independently, and the duration of the second stage of labor recorded in minutes and seconds for each mother. Timing began at the complete dilation of the cervix and continued until the birth of the entire body of the infant. The following scoring check list was used:

1. Pushes at the peak of contraction.
2. Curls back and leans on diaphragm.
3. Keeps chin up.
4. Keeps elbows out.
5. Contracts abdominal muscles.
6. Rolls pelvis back and locks it.
7. Pulls knees back and apart.
8. Relaxes perineum and does not inhibit passage of baby.

9. Sustains breath control.
10. Takes inhalations during contraction without losing position.
11. At the end of contraction slowly releases push position.
12. Uses shallow respirations to release position.
13. Deep breathes at the end of contraction.
14. Relaxes between contractions.
15. Uses blowing respirations for controlled delivery of head.

For each of the above parts of correct diaphragmatic, abdominal-vaginal pushing technique, the woman received a score of one point. If the woman employed perfect diaphragmatic, abdominal-vaginal pushing technique her maximum score was 5. A data sheet was kept on each mother in the four groups. The sheet contains secondary observations regarding: use of analgesia, use of anesthesia, use of forceps, Apgar score of infant, and incidence of unforeseen complications.

Group A showed a mean time of 45 minutes for the second stage of labor. The mean pushing score was 12. When one compares the tables of Groups A and B, however, it is evident that, overall, Group A has a distinctly shorter duration of the second stage of labor. Group A has an average time of 45 minutes, compared with one hour and eight minutes for Group B. No mother in Group B had a time of less than 39 minutes, whereas five mothers (half of the group) in Group A had times of 39 minutes or less.

Group C showed a mean time for the second stage of labor of 13 minutes. It did appear from this particular group of patients that a higher or more nearly perfect score on the pushing scoring check list did correlate generally with a shorter second stage of labor. Group D showed a mean time of 18 minutes for the second stage of labor, or 5 minutes longer than Group C.

### Conclusions

It did appear from the data collected and tabulated that the application of prenatally learned pushing technique did shorten the second stage of labor. This result was most striking in the case of trained and untrained primigravidae, where the time was considerably reduced.

Among the multiparae the pushing scores were clear-cut, and it seemed that these women were more expert in the application of technique. The five-minute overall shorter time may not seem as significant, perhaps, except to the woman in the throes of labor. The individual scores for all groups again show that women with prenatal training do indeed tend to have shorter second stages of labor.

As a result of the study we were able to notice several factors that may prove of interest and worthy of note. A woman in the second stage of labor responds best to coaches who are close to her face and hands. Simple, direct commands receive the best response. Commands given from a distance often confuse the mother and have to be repeated. Physicians working on the perineal area need to raise their heads and speak loudly enough for the woman to hear them. Various forms of supportive physical contact such as stroking and patting seem to encourage the mother. Low stirrup position definitely helps the woman achieve a better push position as does a raised back position.

It is recommended that prenatal training be continued and encouraged for expectant parents as it appears to have a definite physiological benefit in shortening the second stage of labor. It is recommended that nurses caring for women in the second stage of labor remain in as close physical proximity as possible to the laboring woman, especially when giving directions. All personnel should offer physically comforting and soothing words of encouragement.

Positioning of the delivery table should be done with the comfort of the mother and effectiveness of the push position considered. As noted, low stirrup position and a comfortably raised back seem most effective.

The actual pushing technique was applied by both prenatally trained women and those who received training in actual labor. By far, those with advanced training as a group were more successful. The facets of the technique most frequently forgotten or misapplied were: forgetting to keep the elbows out, slowly relaxing at the end of the contraction, and deep breathing at the end of the contraction. Almost all the women needed one or two contractions to get their pushing effectively organized.

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**TABLE 1**

**GROUP A**
**Prenatally Educated Primigravidae**

| *Patient* | *Duration of First Stage of Labor* | *Duration of Second Stage of Labor* | *Score: Pushing Technique* | *Infant Birth Weight* |
|---|---|---|---|---|
| 1 | 11 hr. 44 min. | 2 min. | 15 | 9 lbs. |
| 2 | 6 hr. 50 min. | 7 min. | 10 | 8 lbs. 14 oz. |
| 3 | 13 hr. 30 min. | 20 min. | 10 | 5 lbs. 3 oz. |
| 4 | 10 hr. 22 min. | 22 min. | 11 | 6 lbs. |
| 5 | 16 hr. 20 min. | 39 min. | 3 | 6 lbs. 14 oz. |
| 6 | 13 hr. 20 min. | 42 min. | 15 | 7 lbs. 3 oz. |
| 7 | 7 hr. 49 min. | 51 min. | 14 | 8 lbs. 1 oz. |
| 8 | 5 hr. 30 min. | 1 hr. 10 min. | 14 | 8 lbs. 6 oz. |
| 9 | 2 hr. 55 min. | 1 hr. 35 min. | 15 | 7 lbs. 14 oz. |
| 10 | 12 hr. | 1 hr. 48 min. | 6 | 7 lbs. 10 oz. |

Meantime duration second stage of labor
Group A = 45 min.
SD ± 34.21 minutes
Mean Score – Pushing Technique = 12

**TABLE 2**

**GROUP B**
**Non-Prenatally Educated Primigravidae**

| *Patient* | *Duration of First Stage of Labor* | *Duration of Second Stage of Labor* | *Infant Birth Weight* |
|---|---|---|---|
| 1 | 5 hr. 15 min. | 39 min. | 8 lbs. 1 oz. |
| 2 | 15 hr. 35 min. | 45 min. | 6 lbs. 1 oz. |
| 3 | 25 hr. 55 min. | 46 min. | 6 lbs. 12 oz. |
| 4 | 10 hr. 10 min | 52 min. | 7 lbs. 10 oz. |
| 5 | 17 hr. 30 min. | 1 hr. 9 min. | 6 lbs. 5 oz. |
| 6 | 13 hr. 20 min. | 1 hr. 15 min. | 7 lbs. 6 oz. |
| 7 | 16 hr. 0 min. | 1 hr. 20 min. | 7 lbs. 1 oz. |
| 8 | 6 hr. 30 min. | 1 hr. 28 min. | 6 lbs. 9 oz. |
| 9 | 7 hr. 35 min. | 1 hr. 28 min. | 7 lbs. 5 oz. |
| 10 | 12 hr. 30 min. | 1 hr. 35 min. | 7 lbs. 7 oz. |

Meantime duration of second stage of labor
Group B = 1 hr. 8 min.
SD ± 19.58 minutes

**TABLE 3**

**GROUP C**
**Prenatally Educated Multiparae**

| *Patient* | *Duration of First Stage of Labor* | *Duration of Second Stage of Labor* | *Score: Pushing Technique* | *Infant Birth Weight* |
|---|---|---|---|---|
| 1 | 12 hr. 5 min. | 8 min. | 14 | 7 lbs. 14 oz. |
| 2 | 2 hr. 13 min. | 9 min. | 14 | 9 lbs. 6.5 oz. |
| 3 | 3 hr. 5 min. | 9 min. | 15 | 6 lbs. 11 oz. |
| 4 | 5 hr. 55 min. | 10 min. | 14 | 8 lbs. 20 oz. |
| 5 | 16 hr. 0 min. | 10 min. | 15 | 7 lbs. 10 oz. |
| 6 | 4 hr. 30 min. | 13 min. | 13 | 8 lbs. 7 oz. |
| 7 | 2 hr. 13 min. | 13 min. | 15 | 7 lbs. 10 oz. |
| 8 | 9 hr. 5 min. | 16 min. | 11 | 8 lbs. 5 oz. |
| 9 | 23 hr. 0 min. | 19 min. | 13 | 8 lbs. 6 oz. |
| 10 | 8 hr. 50 min. | 25 min. | 2 | 9 lbs. 12 oz. |

Meantime duration second stage of labor
Group C = 13 min.
SD ± 5.13 minutes
Mean Score – Pushing Technique = 13

**TABLE 4**

**GROUP D**
**Non-Prenatally Educated Multiparae**

| *Patient* | *Duration of First Stage of Labor* | *Duration of Second Stage of Labor* | *Infant Birth Weight* |
|---|---|---|---|
| 1 | 4 hr. 10 min. | 8 min. | 8 lbs. 5 oz. |
| 2 | 3 hr. 5 min. | 10 min. | 9 lbs. 11 oz. |
| 3 | 12 hr. 55 min. | 11 min. | 8 lbs. 7 oz. |
| 4 | 8 hr. 35 min. | 13 min. | 7 lbs. 1 oz. |
| 5 | 1 hr. 35 min. | 14 min. | 7 lbs. 14 oz. |
| 6 | 7 hr. 30 min. | 15 min. | 8 lbs. 11 oz. |
| 7 | 9 hr. 50 min. | 16 min. | 9 lbs. 6 oz. |
| 8 | 1 hr. 30 min. | 18 min. | 7 lbs. ½ oz. |
| 9 | 19 hr. 0 min. | 35 min. | 9 lbs. 8 oz. |
| 10 | 6 hr. 44 min. | 37 min. | 7 lbs. 5 oz. |

Meantime duration second stage of labor
Group D = 18 min.
SD ± 9.57 minutes

# Mucinous Cystadenomas Of The Ovary: Analysis Of Cases At Charleston Area Medical Center, Memorial Division

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*All of the cases of mucinous cystadenoma of the ovary at Memorial Division, Charleston Area Medical Center, Charleston, West Virginia, were reviewed through 1977. A statistical analysis of various features of these benign ovarian neoplasms is presented.*

OVARIAN mucinous cystadenomas are relatively common, benign neoplasms which may occur at any age. The tumors account for about 15 per cent of all ovarian neoplasms, are usually unilateral and, in about 10 per cent of cases, are bilateral. Characteristically, the tumor is multilocular and may reach gigantic proportions. The wall of the tumor and the loculations formed by the tumor are lined by a single layer of tall, mucus-secreting columnar epithelium which is charactertistic and diagnostic for this type of tumor. Papillae are uncommon, and malignant changes are thought to occur in approximately five per cent of the cysts. The present study omitted the cases known to be malignant.

### Incidence

During the period from November, 1951, to December 31, 1977, inclusive, there were 112 cases of mucinous cystadenoma of the ovary reported in the medical records department of the Memorial Division of the Charleston Area Medical Center (Table 1). The patients' ages ranged from 15 to 71 years with a preponderance in the mid-upper reproductive years and early menopausal years (Table 2). Eighteen (16.1 per cent) of the patients were nulligravidas while four (3.6 per cent) had been pregnant seven or more times (Table 3).

**TABLE 1**

**Year Patient Was Hospitalized For Treatment**

| *Year* | *No.* | *Per Cent* |
|---|---|---|
| 1951 - 1954 | none catalogued | |
| 1954 - 1958 | 13 | 11.6 |
| 1959 - 1963 | 20 | 17.9 |
| 1964 - 1968 | 26 | 23.2 |
| 1969 - 1973 | 26 | 23.2 |
| 1974 - 1977 (4 years) | 27 | 24.1 |

### History and Symptoms

Twenty-five (22.3 per cent) of the patients were asymptomatic when initially seen, and a few patients had been symptomatic for over two

**TABLE 2**

**Age Groups of Patients with Ovarian Mucinous Cystadenoma**

| *Age* | *No.* | *Per Cent* |
|---|---|---|
| 15 - 20 | 9 | 8.0 |
| 21 - 25 | 7 | 6.3 |
| 26 - 30 | 14 | 12.5 |
| 31 - 35 | 11 | 9.8 |
| 36 - 40 | 14 | 12.5 |
| 41 - 45 | 11 | 9.8 |
| 46 - 50 | 12 | 10.7 |
| 51 - 55 | 14 | 12.5 |
| 56 - 60 | 5 | 4.5 |
| 61 - 65 | 6 | 5.4 |
| 66 - 70 | 7 | 6.3 |
| 71 - | 2 | 1.8 |

**TABLE 3**

**Pregnancy Status of Patients with Ovarian Mucinous Cystadenoma**

| *Gravidity* | *No.* | *Per Cent* |
|---|---|---|
| Nulligravida | 18 | 16.1 |
| I - III | 51 | 45.5 |
| IV - VI | 16 | 14.3 |
| VII or more | 4 | 3.6 |
| Unlisted | 23 | 20.5 |

**TABLE 4**

**Duration of Symptoms**

| | *No.* | *Per Cent* |
|---|---|---|
| Asymptomatic | 25 | 22.3 |
| Less than 1 month | 15 | 13.4 |
| 1 - 3 months | 18 | 16.1 |
| 4 - 6 months | 8 | 7.1 |
| 7 - 9 months | 4 | 3.6 |
| 10 - 12 months | 7 | 6.3 |
| 13 - 24 months | 12 | 10.7 |
| More than 24 months | 3 | 2.7 |
| "Several" or "few" months | 12 | 10.7 |
| Unspecified | 8 | 7.1 |

years (Table 4). The more common symptoms noted by the patients are listed in Table 5. One third of the patients noticed a mass or enlarging abdomen, and a third had experienced cramping or pelvic discomfort. Menstrual disturbances were noted in 20 (17.9 per cent), the disturbances usually being in the form of menometrorrhagia. Two patients experienced post-menopausal bleeding. It was of interest that 11 patients (9.8 per cent) were taking birth control pills when the cyst was detected, and that in three patients the cyst failed to regress when they were given ovulatory suppressive therapy with the pill. Eight patients (7.1 per cent) were admitted through the emergency room with some type of acute episode (Table 5).

Almost half of the patients had previously undergone some form of pelvic or abdominal surgery (Table 7). Note that 11 patients (11.6 per cent) had previously had an ovary removed. The tendency of the cyst to adhere to and become contiguous with other pelvic organs, especially if leakage occurred, makes the dif-

**TABLE 5**

**Most Common Symptoms of Mucinous Cystadenoma of the Ovary**

| *Symptom* | *No.* | *Per Cent* |
|---|---|---|
| None (mass found on routine exam or incidentally) | 25 | 22.3 |
| Abdominal fullness, heaviness | 9 | 8.0 |
| Cramping, pain or discomfort | 40 | 35.7 |
| Mass noted, enlarged abdomen | 36 | 32.1 |
| Nausea, vomiting | 3 | 2.7 |
| Dyspareunia | 4 | 3.6 |
| Back pain | 2 | 1.8 |
| Urinary frequency, nocturia | 4 | 3.6 |
| Menstrual disturbance | 20 | 17.9 |
| Bowel disturbance | 3 | 2.7 |

**TABLE 6**

**Emergency Admission of Patients With Ovarian Mucinous Cystadenoma**

1. 16 weeks pregnant with pain, nausea and vomiting. Acute appendicitis.
2. Exquisite pain in right side. Twisted cyst?
3. Abdomen and back pain, 8 weeks pregnant. Twisted cyst.
4. Right abdominal pain. Admitted one month previously to rule out cholecystitis.
5. Sudden pain, right lower abdomen with vomiting. Twisted cyst.
6. Lacerated hymen. Cyst found during exam and repair.
7. Recurrent right lower abdominal pain. Possible kidney stone?
8. Incarcerated umbilical hernia. Cyst found.
9. Acute abdominal pain. Torsion of cyst.

**TABLE 7**

**Previous Pelvic or Abdominal Surgery in Patients With Mucinous Cystadenoma of the Ovary**

| *Procedure* | *No.* | *Per Cent* |
|---|---|---|
| Cesarean section | 4 | 3.6 |
| Bilateral partial salpingectomy | 8 | 7.6 |
| Abdominal hysterectomy | 6 | 5.4 |
| Unilateral salpingo-oophorectomy | 13 | 11.6 |
| Appendectomy | 8 | 7.6 |
| Cholecystectomy | 3 | 2.7 |
| D & C, cold conization of cervix | 3 | 2.7 |
| D & C | 11 | 9.8 |
| Umbilical herniorrhaphy | 1 | .9 |
| Vaginal hysterectomy | 1 | .9 |
| Culdoscopy | 1 | .9 |
| D & C, hysterosalpingogram | 1 | .9 |
| Right nephropexy | 1 | .9 |
| Laparotomy | 2 | 1.8 |
| Anterior and posterior repair | 2 | 1.8 |
| Laparoscopic examination | 1 | .9 |

**TABLE 8**

**Cases in which Pregnancy was Associated With Cystadenoma or Considered as Primary Diagnosis**

1. 36 y.o. G3.P3. Pregnancy test negative 1 week before admission. Was told by L.M.D. was 16 weeks pregnant. Uterus thought enlarged. Had left salpingo-oophorectomy and suturing corpus luteum of right ovary.
2. 17 y.o. G1.P0. 16 weeks pregnant, pain, nausea, vomiting. Acute gangrenous appendix. 18 cm. cyst removed.
3. 21 y.o. G1.P0. Abdominal and back pain, two months pregnant. Twisted cyst. Had right salpingo-oophorectomy and appendectomy.
4. 21 y.o. G1.P0. Breech, unengaged with mass in culdesac. Had cesarean section, total abdominal hysterectomy, bilateral salpingo-oophorectomy, appendectomy and lysis of adhesions.
5. 40 y.o. G.0. Irregular periods and nervousness. Pregnancy test positive, repeated negative. Mass ½ to umbilicus. Had total abdominal hysterectomy, bilateral salpingo-oophorectomy and appendectomy.
6. 39 y.o. G.0. Complained of heaviness. Internist note: "when I first examined this patient I thought she was pregnant because of softening of the cervix and rounded mass which I took to be a gravid uterus." Had left salpingo-oophorectomy and appendectomy.
7. 28 y.o. G?. Abdominal pain. Was in hospital 6 weeks previously, pregnancy test positive (no missed periods). Mass doubled in size. Had D. & C., left salpingo-oophorectomy.
8. 28 y.o. G2.P2. Irregular periods, increasing abdominal mass, was thought to be pregnant, felt fetal movement but no fetal heart tone. Previously had cysts removed from ovary on 3 occasions. Had abdominal hysterectomy, left salpingo-oophorectomy.
9. 15 y.o. G1.P0.A1. Five weeks earlier was in hospital with amnionitis, twin fetus delivery at 3½ months with placental infarction. Had 28 cm. cyst removed.
10. 24 y.o. G5.P2.A2. Referred by L.M.D. for hydramnios. Delivered 4 lb., 2½ oz. infant 1 month post-cystectomy.

ferentiation from pregnancy a concern at times. Table 8 has listed the cases where this was noted. Further confusion is introduced by the presence of uterine fibroids which were suspected preoperatively in 12 (9.5 per cent) of the patients and found in 17 (15.2 per cent).

### Treatment

The accepted treatment for an obviously benign mucinous cystadenoma of the ovary is unilateral oophorectomy. The opposite ovary should always be bisected and examined carefully for evidence of cystic disease. If the patient is perimenopausal or older, a bilateral salpingo-oophorectomy should be done in conjunction with a complete hysterectomy. Since the tumor frequently completely replaces the ovary from which it arises, it usually is not amenable to resection or cystectomy, although this was done in four of the present cases and should be considered in the younger patient with a small cyst. The various types of surgical procedures performed are listed in Table 9.

**TABLE 9**

**Surgical Procedures Performed in Treatment of Patients with Mucinous Cystadenoma of the Ovary**

| *Procedure* | *Number* |
|---|---|
| Cystectomy (shelled out) | 4 |
| Left salpingo-oophorectomy, cystectomy | 39 |
| Right salpingo-oophorectomy, cystectomy | 27 |
| Appendectomy | 44 |
| Abdominal hysterectomy | 39 |
| Bilateral salpingo-oophorectomy | 43 |
| Lysis of adhesions | 19 |
| Partial salpingectomy, opposite tube | 5 |
| Omentectomy | 4 |
| Wedge resection, bivalve opposite ovary | 10 |
| Suture bleeding corpus luteum, right | 1 |
| Left common iliac node biopsy | 1 |
| Breast biopsy | 2 |
| Uterine suspension | 1 |
| Excision of cervical polyp | 2 |
| Dilatation and curettage | 23 |
| Biopsy and electrocauterization, cervix | 2 |
| Excision of Meckel's diverticulum | 1 |
| Excision of residual varicose vein, right leg | 1 |
| Cystoscopy | 2 |
| Ureteral catheterization | 1 |
| Cholecystectomy | 1 |
| Repair of partially severed left ureter | 1 |
| Segmental resection of bladder and resection of distal 1/3 of right ureter | 1 |
| Right hemicolectomy | 1 |
| Radical cervicectomy | 1 |
| Reduction and repair of incarcerated umbilical hernia | 2 |
| Paracentesis | 1 |
| Insertion of radial Scribner shunt | 1 |
| Laparoscopic examination | 2 |

**TABLE 10**

**Size of Ovarian Cyst Removed**

| *Maximum Diameter (centimeters)* | *No.* | *Per Cent* |
|---|---|---|
| 10 or less | 37 | 33.0 |
| 11 - 20 | 41 | 36.6 |
| 21 - 30 | 24 | 21.4 |
| 31 - 40 | 2 | 1.8 |
| 41 - 50 | 3 | 2.7 |
| over 50 | 1 | .9 |
| unlisted | 4 | 3.6 |

### Pathological Features

All but five of the mucinous cystadenomas were multilocular and only two were noted to have papillary projections. The cyst involved the left ovary in 67 (59.8 per cent), right ovary in 36 (32.1 per cent) and was bilateral in eight (7.1 per cent). The diameter of the cyst ranged from a few centimeters to 57 centimeters (Table 10). Accordingly, the weight varied from a few

**TABLE 11**

**Weight of Ovarian Cyst Removed**

| *Weight (Grams)* | *No.* | *Per Cent* |
|---|---|---|
| 500 or less | 5 | 4.5 |
| 501 - 1000 | 7 | 6.3 |
| 1001 - 1500 | 9 | 8.0 |
| 1501 - 2000 | 3 | 2.7 |
| 2001 - 2500 | 4 | 3.6 |
| 2501 - 3000 | 4 | 3.6 |
| 3001 - 3500 | 2 | 1.8 |
| 3501 - 4000 | 1 | .9 |
| 4001 - 4500 | 1 | .9 |
| 4501 - 5000 | 2 | 1.8 |
| over 5000 | 9 | 8.0 |
| unlisted | 66 | 58.9 |

**TABLE 12**

**Other Tumors in Patients With Ovarian Mucinous Cystadenoma**

1. 70 y.o. Adenocarcinoma of the cecum with mucinous transformation.
2. 54 y.o. Cystadenofibroma of opposite ovary.
3. 45 y.o. Mucinous adenocarcinoma of bladder and cervix with iliac node metastasis.
4. 30 y.o. Serous cystadenoma with small dermoid in wall and cystic teratoma in ovary with mucinous cystadenoma.
5. 44 y.o. Serous cystadenoma of right ovary with mucinous cystadenoma in wall.
6. 53 y.o. Previous radical neck dissection for carcinoma.
7. 71 y.o. Radium treatment for cervical carcinoma 16 years earlier.
8. 67 y.o. Serous cystadenoma of opposite ovary.
9. 36 y.o. Benign cystic teratoma with mucinous cystadenoma.

grams to the heaviest of 28.5 pounds, after 3,600 cubic centimeters of fluid had been removed (Table 11). In cases of bilateralism, only the size of the largest cyst was included in Tables 10 and 11. Occasional spillage, decompression for removal and, in one case, repeated paracentesis, altered the size of the tumor. Endometriosis in the same or opposite ovary was noted in six cases (5.3 per cent). Table 12 has listed the cases in which mucinous cystadenoma of the ovary were associated with other benign or malignant neoplasms. One patient was found to have a large mucinous cystadenoma of the ovary with extreme adhesions and extensive pseudomyxoma peritonei. This is generally noted only with the malignant form of this tumor and is thought to result from spontaneous rupture or leakage of the cyst. In contrast, the accidental rupture of a benign cyst in its removal or its evacuation before removal apparently does not affect this process adversely.

### Complications

Major postoperative complications were noted in only three of the treated patients. One developed an ileus postoperatively and required repair of a partially-severed left ureter. Another developed a hematoma of the incision requiring drainage. A third patient developed partial pulmonary atelectasis.

### Summary

During the period of November, 1951, through December 31, 1977, there were 112 cases of mucinous cystadenoma of the ovary at Memorial Division, Charleston Area Medical Center, Charleston, West Virginia. An attempt was made to review the presenting features, diagnostic findings, treatment and pathologic characteristics. The chance of bilateral pathology, not grossly appreciable but already developing in the opposite ovary, necessitates careful inspection, palpation and bisection of the opposite ovary before it can be regarded as normal and uninvolved. It is obvious from the review that, in the occasional patient, extensive adhesions, contiguity with other pelvic organs, previous pelvic surgery, and the possibility of malignant changes on gross inspection make the preservation of fertility difficult and at times impossible.

## Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 1/2 by 11 in.) white paper. Wide margins (at least 1 1/4 in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

# 'Legionnaire's Disease'—An Allergen Theory

ARTHUR N. WARD, M. D.
*105 Doctor's Drive, Bridgeport, West Virginia.*

*It is proposed that Legionnaire's Disease (Respiratory Disease, Philadelphia) was caused by inflammatory immunologic disease rather than infection. Most likely it is an example of Type IV (cell-mediated) hypersensitivity pneumonitis of a severity greater than has been previously reported in the literature due to extreme pulmonary sensitivity to a non-infectious mold or bacterium. Methods of diagnosing the sensitivity, testing for it and treatment of the disease are proposed.*

THE disease has the following salient features of Type IV allergy: a) delay in onset of symptoms after exposure to the causative agent; b) no secondary infection; c)no specific antibody or illness found in previously asymptomatic persons; d) targeting mostly of a single organ system, in this case the lung; e) absence of a demonstrable toxin; f) lack of predilection for youthful persons or small persons who would presumably be more susceptible to an infectious or toxic agent; and g) apparent random occurrence of the disease.

If the disease, then, is postulated to be allergic pneumonitis, how might the Legionnaires have been peculiarly oversensitized? Three main hypotheses readily present themselves. First of all, the main feature that all Legionnaires have in common is that they were once in the military service and thereby could have been exposed to abnormal amounts or types of a bacterium or fungus through exposure to excess bird population as has occurred, for example, at Fort Campbell, Kentucky. Re-exposure could have been from pigeon droppings at the Belleview Stratford Hotel.

Secondly, it is well known that certain fungi (e.g. *Nocardia asteroides*) and noninfectious strains of bacteria (e.g. *Pseudomonas aeruginosa* of non-infectious serotypes) achieve florid growth in ethyl alcohol, and there is evidence of increased alcohol intake in the service.

Therefore, a Legionnaire might have sensitized his lungs many years ago through ingestion asymptomatically of a highly allergenic but noninfectious fungus or bacterium growing in an alcoholic beverage. It is well known that certain fungi can cause infection and delayed skin hypersensitivity at the same time (e.g. *Histoplasma capulatum* or *Blastomyces dermatitidis*), so it surely is reasonable to assume certain fungi or bacteria cause only delayed hypersensitivity. Such a sensitization might well not cause symptoms for many years, especially if the organism or substance were relatively uncommon and therefore unencountered.

Thirdly, it is well-known that certain fungi and *Pseudomonas aeruginosa* grow well in aviation gasoline and kerosene, so the Legionnaires might have been exposed through being around jet aircraft or military airports, for instance.

### Questions for Survivors

It is proposed that the affected survivors be questioned very closely about their original M.O.S. (military occupational specialty), with specific attention to their exposure to kerosene, aviation fuel or large bird populations, the droppings of the latter loaded with fungi and bacteria. They should also be asked about their alcohol intake, for if the theory is correct and related to alcohol, it would be likely that they had high intake in the service followed by several years of reduced intake, then high intake again at the Philadelphia convention, with incidental re-exposure to the mold or bacterium to which their lungs were sensitized.

Previously sickened Legionnaires should also be asked about any history of pneumonia, contact dermatitis, or rheumatoid symptoms (since rheumatoid factor is often elevated in hypersensitivity pneumonitis). They should then be urged to participate in a study with non-allergic, non-service oriented controls in which they would all be placed in an initially sterile laminar flow room to which is aerosolized killed spores of the fungi known to cause hypersensitivity pneumonitis, e.g. *Thermactinomyces Vulgaris* and the Center for Disease Control's "bacterium." If the theory is incorrect, this would be done without risk. They should also be skin tested with extracts of the above fungi and "bacterium" as delayed dermal hypersensitivity would be predictive, perhaps, of those who are lung-sensitized.

The volunteers should then be hospitalized and observed for delayed onset of pulmonary symptoms. If no symptoms ensue within 10 to 14 days, the theory would tend to be disproved. If symptoms do ensue, it could only be through an inflammatory, immunologic mechanism. In this

event, hyperbaric oxygen should be readily available and large doses of steroids started. Just as in poison ivy, it would likely take the lungs 48 hours or so to respond to the steriod, so hyperbaric oxygen would, hopefully, overcome the severe temporary diffusion defect in the lungs.

### Proposed Laboratory Work

The following laboratory studies should also be done: sedimentation rate; immuno-globulin electrophoresis (to rule out Type III disease); M.I.F. (macrophage inhibition factor) using the test fungi and CDC's bacterium as the *in vitro* antigen; complement studies (especially CH 50, the hemolytic component of complement), and rheumatoid factor (also elevated in most cases of hypersensitivity pneumonitis). As far as the proponent can determine, none of the above studies has been obtained. The so-called "bacterium" found by CDC well might be one of the allergens or the allergen responsible for the disease, and is growing slowly because it is non-infectious and therefore does not grow well on, for instance, sheep blood agar.

The theory, by implication, suggests that many undiagnosed cases of fatal hypersensitivity pneumonitis have occurred for centuries and have been undetected because viral and electron-microscopic studies were not available or not done to rule out a virus, so an alternate mechanism was never even suspected. The Legionnaires, then, might have been a statistical artifact due to the convergence of a relatively large number of lung-sensitized individuals arriving at the same place at the same time and, by pure misfortune, being re-exposed to the previously sensitizing fungus or bacterium.

An allergic mechanism needs to be extensively investigated, as it would appear from press releases that this possibility has never been adequately considered. The causative agent may even have been cultured at Philadelphia and rejected as a cause since it was non-infectious.

Finally, in the cases of Legionnaire's Disease not affecting Legionnaires, a history of overexposure to birds, gasoline, and ethyl alcohol should be pursued. While this theory might be totally incorrect, it would seem to lead investigators into a very fertile area in which to look for the answer to this great medical mystery.

### Acknowledgement

It first must be emphasized that the proponent of the theory has been unable to receive much medical data on the mystery lung disease which killed 29 Legionnaires in July and August of 1976, except for the great thoughtfulness and help of U. S. Sen. Robert C. Byrd, Democrat of West Virginia, whose office sent much information, especially on Congressman Murphy's subcommittee which investigated critically the handling of the disease by CDC and the Commonwealth of Pennsylvania.

### Addenda

*Based on the International Symposium on Legionnaire's Disease and other new knowledge available since this paper was originally submitted, the following points should be made:*

(1) CDC's "bacterium" has now been named *Legionella pneumophila*, but it has not been shown that this organism is the only one that causes Legionnaire's Disease; it seems unclear if direct person-to-person spread has ever occurred, but, if so, it has been very rare, and it could occur in accordance with the allergen theory if someone carrying the organism were exposed to someone sensitized to it. The rare instances, if any, of secondary spread are highly unusual in an organism presumed to be "infectious" and of sufficient virulence to cause death in a few days.

(2) There is additional evidence of a predilection for people with a military past in the large number of cases found recently in a V. A. hospital in California. Therefore, exhaustive searches for *Legionella* should be made at all parts of military bases. Epidemiologic study of the veterans and Legionnaires may pinpoint a few military bases in which to search and perhaps also show that some or many of the non-military people afflicted with the disease have, in fact, been at military bases in the past.

(3) *Legionella* is now said to grow best at 35° Celsius, and this fact, also, is against its being a typical infectious agent as the latter tend to grow better at normal body temperature (37°)—hence, the body's normal defense mechanism—fever.

(4) Nothing came out of the Symposium about attempts to grow *Legionella* in unusual media, so I maintain attempts should be made to grow it in 50 per cent ethanol, aviation gasoline or sterile bird droppings for the reasons stated in the paper.

(5) "Pontiac fever" has been linked to *Legionella* and is apparently a mild form of Legionnaire's disease. This is readily explained by the allergen theory—people with this symptom complex were simply less sensitized to *Legionella* and therefore had milder inflammatory immunologic disease.

(6) No attempt as yet seems to have been made to diagnose the disease by skin tests. A positive "Legionellin" test might indicate high-risk (sensitized) individuals if the allergen theory were totally correct, or recovered individuals if the theory were correct to the extent that allergy is partially involved in the pathogenesis of the disease (as is thought to be the case in tuberculosis).

(7) The only evidence strongly against the allergen theory has been the occurrence of the disease with some frequency in immunosuppressed individuals, but this could be explained by failure of the immunosuppressant drugs to affect the immune reaction of Legionnaire's disease due to its intensity or by the fact that some individuals were being suppressed because of being "hyper-immune" in the first place (e.g., the lady, under immunosuppression for S.L.E., who "contracted" the disease). In the latter case, there is a suggestion of an immunologic relationship between S.L.E. and Legionnaire's disease.

(8) If rheumatoid factor tests are performed, as suggested in the paper, and the tests are positive, it may turn out that *Legionella* is a causative agent or the causative agent in rheumatoid arthritis or any other disease in which rheumatoid factor is present. (The same statement applies, of course, to the many molds known to cause typical hypersensitivity pneumonitis in which rheumatoid factor is usually, if not always, elevated.)

(9) The laminar flow room idea using killed *Legionella* might not work because antibiotics help the symptoms of the disease and, therefore, in killing the organism, may be curtailing the triggering of the proposed inflammatory immunologic reaction.

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*Truth is so hard to tell, it sometimes needs fiction to make it plausible.*

Dagobert D. Runes

# *A message from . . .*

# *The President*

## A STEPPED-UP PACE

At this writing, post-holiday activity has moved into full swing. There is, of course, the first regular session of the 64th West Virginia Legislature, which will continue to mid-March. I've discussed the importance of these 60 days in previous messages. Also under way is a new session of Congress, and the lead editorial in this month's issue of *The Journal* addresses in some detail one major continuing matter of interest and concern in Washington.

Evaluation of another Mid-Winter Clinical Conference is scheduled for this month by a planning committee headed in such outstanding fashion over the years by Drs. Joseph T. Skaggs and Ralph H. Nestmann of Charleston. The Medical Association's State Office was working in January to complete a new, bigger, better roster of Association members. A "type of practice" designation is being added for each physician listed for 1979.

Hopefully, around the state and in our 28 component societies, there is a comparable upswing in educational and other activity. I've now had an opportunity to visit with many of you, and speak to your county groups. I'll have more to say about this later. Meanwhile, let me again wish you all the best for 1979—and urge once more that you make a special effort, amid your busy practice schedules, to stay atop the issues of the day.

Robert D. Hess MD.

Robert D. Hess, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

## A NEW DILEMMA

As has been the case for several years now, the American Medical Association's House of Delegates became embroiled in heated discussion, during its interim meeting in Chicago a few weeks ago, about what posture the AMA should or should not take with regard to national health insurance philosophy and legislation.

Your State Medical Association leadership frankly does not feel too comfortable with the possible outcome of the latest debate. The Association has never gone on record as supporting national health insurance, as such—but it has agreed that comprehensive health care should be available to everyone. The AMA has also had a position that everyone should have health insurance, at adequate benefit levels, and that gaps in the present system affecting some segments of the population need to be filled.

Since 1970, the AMA has had its own comprehensive legislative proposals — with significant numbers of sponsors—before the Congress to accomplish these goals. Now, however, the AMA will take a much more limited approach after the House in effect shot down the Council on Legislation, the Council on Medical Services and even the Board of Trustees in adopting a resolution submitted in Chicago by the Florida delegation.

That resolution mandates that the AMA recommend to the Congress modifications to our present health care system embodying the following principles:

1. Requiring minimum standards of adequate benefits in all health insurance policies sold in the United States with appropriate deductible and co-insurance.
2. A simple system of uniform benefits provided by the federal, state and local governments for those individuals who are unfortunate enough (through no fault of their own, i.e., age, disability, financial hardship, etc.) not to be able to provide for their own medical care.
3. A nationwide program by the private insurance industry of America (and government if necesary for reinsurance) to make available catastrophic insurance coverage for those illnesses and individuals where the economic impact of a catastrophic illness could be tragic. All catastrophic coverage should have an appropriate deductible and co-insurance to make it economically feasible and to avoid abuse.
4. A program developed pursuant to these principles should be administered at the state level with national standardization through federal guidelines.

The resolution was referred to the AMA Board of Trustees, which was given the authority to draft a bill embodying the four principles whenever the Board felt it "necessary" to do so.

A few of our concerns:

Principle 1 seems to advocate establishing a federal czar over the insurance industry in matters pertaining to medical insurance. Our friends in the insurance industry might have even more concern over this recommendation than we do.

Principle 2 simply advocates the federalization of Medicaid. The wisdom of advocating the federalization of *anything* aside, the Medicaid program itself is hardly a thing the medical profession should be promoting or endorsing in any form.

Principle 3 is poorly conceived and dangerously ambiguous at best. It would set up federal controls over insurance companies superseding the present state controls. In advocating catastrophic coverage for "those illnesses" it promotes the sale of Sunday Supplement type "Cancer Insurance" policies, a type of insurance coverage the AMA has been at some pains to condemn. We wonder ourselves additionally, what type of

"catastrophic illness" could *not* be "tragic." We also fear, along with the AMA leadership, the ease with which any purely catastrophic insurance program could be turned into a full-blown national health insurance system by simply lowering the deductible or keeping it static in an inflationary economy.

Principle 4 would expose us to the same bureaucratic arbitrariness in insurance programs that we now writhe under in health planning programs. Do we never learn?

The AMA leadership has reiterated that it continues to believe everyone should have health insurance, at adequate benefit levels; and that the gaps in the present system that affect some segments of our population need to be filled. The Board of Trustees has directed the AMA staff to review carefully the resolution in the context of existing policy, and the Board and the Council on Legislation and Council on Medical Service now are giving further careful attention to the national health insurance issue.

The results will be interesting—but medicine must *not* be caught in a situation where it doesn't offer some answers of its own when key issues related to the nation's health are squarely on the line.

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**MEDICINE POLITICIZED**

From time to time, we've offered some observations about medicine and the political arena. Dr. James H. Sammons, Executive Vice President of the American Medical Association, covered this same general ground extremely well in a recent address to a medical school student and faculty audience at Cornell University. His thoughts offered substantial food for additional thought. Doctor Sammons said, in part:

"It has to be acknowledged that along with virtually everything else in American life, American medicine has been politicized. By that I mean that decisions which once might have been made entirely within the medical profession are now being made through the political process. We have, for example, state legislatures entering into clinical decisions over the validity or invalidity of laetrile for the terminal cancer patient. We have seen Congress trying to enter into the admissions policies of medical schools, suggesting percentage quotas as to how many U. S. students from medical schools abroad should be admitted in the third year. We have the Federal Trade Commission attempting to redefine the Code of Medical Ethics. And, of course, we have the Supreme Court telling us that there will be no more prayers to the Almighty said in public schools.

"I can think of no better illustration of how politicized medicine has become than an episode which took place at our annual meeting in June, 1977, in San Francisco. In a somewhat unusual step for us, we invited the Secretary of HEW to address the opening meeting of the AMA House of Delegates. Accepting the invitation eagerly, Mr. Califano then used the occasion to make political hay with a demagogic attack on what he called a vast, sprawling, complex, highly expensive and virtually non-competitive industry, on what he called overpaid physicians and a generally obese medical system, failing so spectacularly that only massive governmental intervention could rescue it. In essence, he said, American medicine has become a financial rip-off.

"Soon after the Secretary sat down, to applause that I would describe as restrained, Theodore Cooper, M. D., Dean of the Cornell Medical School, came to the podium to accept an award. He took the opportunity in his brief acceptance speech to answer Secretary Califano in a polite, gentlemanly and perfectly appropriate way. Never, he said, has anything that is basically as good as American medicine been made to sound so bad.

"I mention that episode for two reasons. First, it underscores the extent to which medicine has been politicized. Second, and more important, it tells us something about the quality of the politicizing process.

"The truth is that in today's political climate, an honest, informed balanced judgment of an established institution simply falls on deaf ears. This is a time of highly emotionalized discontent with virtually all our institutions. Medicine is not alone as a target of sharp, often unfair, criticism. Anti-establishment feeling runs high against government, against business, against the judicial system, against education, against just about anything you care to name. The White House is occupied by a man who successfully ran against an institution called Washington, and the voters of California by approving Proposition 13 have voiced an anti-establishment protest of considerable clarity.

"The question that puzzles me is: How genuine is the unrest? Is this just good, gold-fashioned political Populism, a play to the crowd? Or is it something for real? Is it all just media hype? Or are we confronted with deep, genuine feelings?"

Doctor Sammons doesn't profess to have the answers to his many-parts questions. The polls and other elements have offered conflicting and often complex answers, or parts of answers. But Doctor Sammons noted that there are many undercurrents and forces at work in society today.

Those forces, he noted, might seem remote, or abstract. They are, however, very real—and they have significant relevance for medicine.

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It's a curious fact that the critics of the medical profession traditionally identify the object of their scorn as "The Health Care Industry."

**MISTAKEN IDENTITY**

No other profession is referred to—even by its critics—as an "industry." Villification campaigns never identify "The Legal Care Industry," for example, or "The Religious Care Industry," even though they exist for the purpose of providing personal services and are properly classified as professions.

Lawyers, ministers and physicians all render personal, private and confidential services. They all function within organizations which include specialized facilities and require community support. As individuals and as professionals they must maintain fiscal solvency, effective administrative structures, adequate executive skills and familiarity with large bodies of constantly-changing data and knowledge. In these respects, at least, the professions are similar. Why is it, then, that only the medical profession suffers derogatory identification as an industry?

Of course, the answer is clear: The federal government views us as an industry, calls us an industry, and deals with us as an industry. In spite of this bureaucratic blunder, however, the health care profession will never and—more to the point—*can* never function as an industry. Personal health services cannot be adapted to assembly-line techniques . . .

Still, our foolish bureaucracy insists on dealing with the health care profession as an industry. It has decreed that we are an industry and it will forever demand that we become what we can never be. Health care agencies and professionals are not components of an industry . . . They are resources of personal services — vital services which cannot be replaced by computers or vending machines; cannot be regulated by uniform codes; cannot be altered by bureaucratic fiat; cannot be manufactured or packaged . . . —*Mark R. Johnson, M. D., Editor-in-Chief, Oklahoma Medical Association Journal.*

## *Our Readers Speak*

### The Point Was Missed

The editorial about rationing health services in West Virginia completely missed the point of the speech I made to the State Hospital Association. The discussion centered around the future viability of the small rural hospital in West Virginia. Several of them have closed and this has led to an erosion of services in some communities. People in the Hospital Association feel that the trend may continue. That is of great concern to many of us.

Not only is the loss of the small rural hospital a serious problem, but it seems quite likely that the rural practitioners will not wish to practice in an area where the services of a hospital may not be available. Since hospitals are becoming more and more sophisticated, more and more complex and more and more costly, it seems quite likely that the small, rural hospital can be maintained as a full-service hospital, competitive in its technology with the urban medicial center. It was in this sense that I discussed the concept of the primary care hospital or the "down-sized" hospital.

Rather than sit back and see rural practices close, it may be possible not only to accept, but to design a primary health care facility with both in-patient and out-patient services which would provide the intellectual and professional excitement as well as the necessary resources to keep practitioners functioning in the rural area and to provide needed health services. Rather than "ration" health services, my suggestion was clearly aimed at maintaining effective private practices in the communities of West Virginia and supporting the best of the rural health clinics which have been developed over the past ten years.

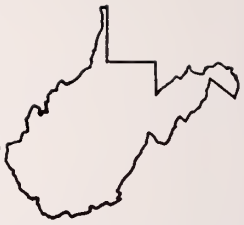
The editorial describes me as a person ". . . enamored of a centralized, controlled and regulated medical system . . ." Quite the contrary: my principal concern is that we seem to be headed in just that direction and, as I said in my speech to the American Public Health Association over a year ago in an article published in the *Journal* last winter and on numerous other occasions, we have to strengthen the community base of both private and public practices so that centralization and bureaucratization of health care in West Virginia and throughout the United States cannot occur.

Whether or not it becomes necessary for the citizens of any community to acquire the responsibility of owning their own hospital, it is clearly in our interests—both providers and consumers alike—to focus on community-based care, community-based governance, and local, rather than centralized, decision-making.

I respect the point of view expressed in your editorial—but am surprised that my talk before the Hospital Association, which was clearly aimed in a contrary direction, could have been used as a springboard for the argument.

George E. Pickett, M. D., Director
West Virginia Department of Health
Charleston 25305

# GENERAL NEWS



## Symposium On Drug Reactions On Convention Program

A "Symposium on Drug Reactions and Interactions" has been scheduled as the first general scientific session during the 112th Annual Meeting of the State Medical Association to be held

W. L. Thompson, M. D., Ph. D.

Frank J. Ayd, Jr., M. D.

August 22-25 at the Greenbrier in White Sulphur Springs.

The symposium will be held following 9 A.M. opening exercises on Thursday, August 23, with the following speakers and topics:

"Perspectives of Clinical Problems with Drugs"—Leighton E. Cluff, M. D., Vice President, The Robert Wood Johnson Foundation, Princeton, New Jersey;

"Drug Levels: Fact and Fancy"—W. Leigh Thompson, M. D., Ph. D., Co-Director of Clinical Pharmacology and Critical Care Medicine, University Hospitals of Cleveland, and

"Psychotropic Drug Interactions"—Frank J. Ayd., Jr., M. D., Director of Professional Education and Research, Taylor Manor Hospital, Baltimore; and Professor of Psychiatry, West Virginia University Medical Center, Charleston.

The moderator for the symposium will be Dr. Donald S. Robinson of Huntington, Chairman, Department of Pharmacology, and Professor of Pharmacology and Medicine, Marshall University School of Medicine.

Papers on joint replacement, pain and rheumatology will be presented at the Friday morning general session, with a symposium on liver disease scheduled for Saturday morning.

### Medical Editor

Doctor Thompson also is Associate Professor of Medicine and Associate Professor of Pharmacology at Case Western Reserve University in Cleveland. He is Chairman of the Pharmacy and Therapeutics Committee of the University Hospitals of Cleveland, and is Adjunct Professor of Drug Information, School of Library Science, at Case Western Reserve.

Doctor Thompson also is Adjunct Associate Professor of Pharmacology at the Ohio State University School of Medicine; Editor and Director of Medicine Today, Case Western Reserve; a member of the Editorial Board for Critical Care Medicine, Williams and Wilkins, and a member of the Editorial Board for Biomedia Weekly.

Doctor Thompson also is staff physician for the WKYC-TV (NBC) News Department in Cleveland.

He is the recipient of the 1971-73 Faculty Development Award in Clinical Pharmacology from the Pharmaceutical Manufacturers Association Foundation, Inc., and was named the 1975-80 Burroughs Wellcome Scholar in Clinical Pharmacology.

A Diplomate of the American Board of Internal Medicine and a Fellow of the American College of Physicians, Doctor Thompson is a member of the American Society for Pharmacology and Experimental Therapeutics, and now serves on the Society's Executive Committee for the Division of Clinical Pharmacology. His other memberships include those in the American Medical Writers Association and the Society for Critical Care Medicine. For the latter group, he is Chairman of the Examination Subcommittee, a member of its Council, and the 1980 Program Chairman.

A native of Shreveport, Louisiana, Doctor Thompson took his undergraduate work at the University of Chicago, the University of South

Carolina, and the College of Charleston (South Carolina). He earned M. S. and Ph. D. degrees in pharmacology from the Medical University of South Carolina, receiving his M. D. degree in 1965 from Johns Hopkins University School of Medicine.

He did postgraduate work at the Medical University of South Carolina and Johns Hopkins, and held several teaching assignments at the latter institution before going to Cleveland in 1974.

Doctor Thompson is the author or co-author of some 90 scientific articles.

### Publishes 300 Articles

Doctor Ayd received his medical degree in 1945 from the University of Maryland School of Medicine. The American Board of Psychiatry and Neurology, Inc. certified him a Diplomate in Psychiatry in 1951. Since then, Doctor Ayd has been actively engaged in the practice of psychiatry, in clinical research, and in writing and lecturing. He has lectured in Europe, Asia, Africa, South America, the Orient, Australia, New Zealand and North America.

Doctor Ayd is a member of numerous national and international medical societies. He is a Fellow of the American Psychiatric Association, a Fellow and Founder of the American College of Neuropsychopharmacology, and an Honorary Fellow of the Georgia Psychiatric Association. He is a member of the Royal College of Psychiatrists and a corresponding member of the Australian and New Zealand College of Psychiatrists.

Doctor Ayd has published some 300 scientific articles, and is a contributor to more than 40 books. He is Editor and Publisher of the International Drug Therapy Newsletter and The Medical-Moral Newsletter, and is on the editorial staff of several medical journals and other medical publications. He is the author of *Recognizing The Depressed Patient* (Grune & Stratton).

### Receives Awards

In 1955, Doctor Ayd was the recipient of the Distinguished Service Award and designated Most Outstanding Young Man of the Year by the United States Junior Chamber of Commerce for Baltimore and the State of Maryland. In 1960, he was the recipient of the Holy Name Society Award for Outstanding Service to Church and Community. In 1962, he began broadcasting over the Vatican Radio on a program called "Religion and Science" and, in 1963, was honored by being the first American layman to be appointed to the Faculty of the Pontifical Gregorian University in Rome. In 1978, he was designated Alumnus of the Year of Loyola College.

Other awards received by Doctor Ayd include four honorary Doctor of Laws degrees (Xavier University, Ohio; Mt. St. Mary's College, Maryland; College of St. Elizabeth, New Jersey; St. Edwards University, Texas), and an honorary Doctor of Science degree (Stonehill College, Massachusetts). In 1975, he was recipient of the American Medical Writers Association Award.

### Other Convention Information

Annual Meeting activities will get under way with a 2 P. M. meeting of the Association's Executive Committee on Tuesday, August 21; the usual pre-Convention meeting of the Council at 9:30 A. M. on Wednesday, and the opening session of the House of Delegates at 2:30 P. M. on Wednesday.

An invitation has been extended to Dr. Hoyt D. Gardner of Louisville, Kentucky, who then will be President of the American Medical Association, to address the August 22 House session.

More specific information relative to other general session topics and speakers will be provided in upcoming issues of *The Journal.* Meanwhile, reservation forms provided by the Greenbrier were included with a year-end bulletin to all Association members mailed in early January, and those planning to attend the Annual Meeting are encouraged to give them their earliest possible attention.

### Section Meetings

The general Convention format once again will provide opportunities for breakfast, luncheon and other meetings, of a scientific and/or business nature, of the various sections and specialty organizations affiliated with the Medical Association. It is anticipated that the bulk of these again will be scheduled on Friday, August 24.

Plans also call for the usual President's Reception on Wednesday evening, August 22, and the Saturday evening reception for new officers. The latter will follow the second and final House of Delegates session at 2:30 P. M. on Saturday which will bring the inauguration of Dr. Stephen D. Ward of Wheeling as President to succeed Dr. Robert D. Hess of Clarksburg.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. D. Sheffer Clark of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's Convention.

# Medico-Legal

*Editor's Note:*

*The following material was prepared by Richard D. Lindsay, M. D., J. D., a 1974 graduate of West Virginia University School of Medicine and a 1978 graduate of the West Virginia University School of Law. He is a member of the American College of Emergency Physicians, West Virginia State Medical Association, and the West Virginia State Bar Association. He currently is practicing law and emergency medicine in Charleston.*

## Emergency Treatment Of The Minor

One of the best safeguards against a malpractice suit is development by a physician of a personal and trusting relationship with his patient. One usually will not sue if he believes a physician "did his best" in a given situation. For the general practitioner, therefore, litigation rarely, if ever, will occur as long as he or she can avoid pitfalls related to misunderstandings, personality conflicts and the like.

With emergence of the field of "emergency medicine," these basic tenets have become even more important in the atmosphere of a litigation-conscious public. There is no specialty in which there is less time to develop a semblance of a physician-patient relationship than that of emergency medicine. First, the patient is there, not because he or she wants to be, or for a routine check, but because of a problem thought to be potentially life-threatening or demanding immediate attention. Second, the patient often has a "family doctor" or has heard of a physician he would like to take care of his problem—only to be met and treated by a doctor whom he does not know or, perhaps, has not even heard of. The patient thus can be skeptical of that physician's ability and qualifications. Third, because of the work-load crush in a busy emergency room, only a short period of time can be given to the needs of most patients—and this at inflated expense. Additionally, a patient often feels that no matter what his problem, his "emergency" should be treated and seen before others. This triad of waiting, high costs, and short personal contact with the treating doctor leads to an indignation which is only accentuated in the development of what the patient feels is a poor or inadequate result of treatment.

Emergency physicians have therefore developed certain safeguard procedures which might cause a delay in treatment, but which they feel will insulate them legally from potential problems in some explosive situations. The purpose of this article is to explore one such situation, and explain the current legal theory regarding the proper care and handling of it.

### Treatment of Minors

The children of today are much more advanced in many respects than their parents were at the same age or stage in their lives. People today are conditioned to sending a son or daughter, who is 16 or 17 years old, on many errands which require a certain degree of maturity and ability to make decisions for themselves, and perhaps, even for the entire family. But the law and its responsibility do not change as quickly in many aspects as the customs of the people.

Children at the age of 16 can drive a car and most of us do not worry if we let even younger children stay at home alone or even take care of, or "babysit" for, their infant brothers or sisters. Thus, it seems strange to the public that if a teenager steps on a nail and is sent alone to the hospital to get a tetanus shot, the hospital and doctor will not give that shot. That is, however, the general rule. A minor is incapable of giving consent by himself, and before treatment is instituted, authority must be obtained from a parent or guardian. By treatment is meant not only the actual giving of medication or any other physical treatment of the patient, but also any preliminary history of diagnostic studies which are performed.

### Exceptions

As with any rule, there are exceptions: (1) when an "emergency" exists, i.e., when it is obvious that treatment must be instituted to preserve the life and/or limb of the patient; (2) when the child is considered "emancipated," i.e., married; (3) when a parent cannot be located or contacted, and the child will suffer permanent, although not life-threatening, damage if the treatment is not instituted; (4) when the child is close to maturity and knowingly gives an informed consent.[1]

Therefore, physicians in a hospital emergency room are usually well within their rights in refusing treatment for minors who come in for care. This works a hardship upon working parents because it is "inconvenient" and sometimes embarrassing for a 17-year-old son to have his mother accompany him to see a doctor. But the law considers this inconvenience or embarrassment a reasonable price to pay to insure that a

young person is not taken advantage of, or does not give an incorrect medical history which might lead to incorrect treatment and possibly harm, i.e., an allergy to penicillin which a child does not know about.

What if a doctor goes ahead and takes care of a child without a parent's consent? The answer seems at this time to be that if a doctor acted in "good faith," i.e., an attempt is made to contact the parents and the care was reasonable, the courts will bend over backward to find the doctor and the hospital without liability, even if there truly was no life-and-death emergency period.[2,3,4,5] With physicians as litigation-conscious as they are today, and with the poor development of the physician-patient relationship in the emergency room, however, it might in most circumstances be too much to expect the doctor to take care of a minor patient in this manner.

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1. *Bonner v. Moran* 75 app. D.C.156, 126 5th ed, 121.
2. *Younts v. St. Francis Hospital and the School of Nursing* 205 Kansas 292, 469 Pacific 2d 330 (1970).
3. *Lacy v. Laird* 166 Ohio State 12, 139 N.E. 2d 25 (1956).
4. *Smith v. Seibley* 72 Washington 2d 16, 431 Pacific 2d 719 (1967).
5. *Bakker v. Welsh* 144 Michigan 632, 109 N.W. 94 (1906).

**Drs. Frank J. Holroyd (left) of Princeton and Harry S. Weeks, Jr., of Wheeling, listen as Dr. Tom E. Nesbitt of Nashville, Tennessee, the President of the American Medical Association, addresses the AMA House of Delegates during its interim meeting in Chicago in December. Doctor Holroyd is the oldest delegate in the AMA House from point of service. Doctor Weeks, an Alternate Delegate from the State Medical Association, served during the AMA meeting in the place of Dr. Richard E. Flood of Weirton, who was unable to be present because of illness in his family.**

# *Review A Book*

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Current Obstetric & Gynecologic Diagnosis and Treatment, 2nd Edition*, by Ralph C. Benson, M.D. 976 pages. Price $18. Lange Medical Publications, Los Altos, California 94022. 1978.

*The Metabolic Management of the Critically Ill*, by Douglas W. Wilmore, M. D. 262 pages. Price $22.50. Plenum Publishing Company, New York, New York 10011. 1977.

*Medical Sociology: A General Systems Approach*, by Leon S. Robertson, Ph. D., and Margaret C. Heagarty, M. D. 220 pages. Price $11. Nelson-Hall Publishers, 325 West Jackson Boulevard, Chicago, Illinois 60606. 1975.

*The Multiple Sclerosis Diet Book*, by Roy L. Swank, M. D., Ph. D., and Mary Helen Pullen. 326 pages. Price $8.95. Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10017. 1977.

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## AMA Repudiates Unnecessary Surgery Report Charge

The public is being misled by a Congressional subcommittee which has charged American physicians with performing unnecessary surgery, Dr. Tom E. Nesbitt, President of the American Medical Association, said recently. The subcommittee is apparently seeking to expand the regulation of medicine, but there is no evidence that such regulation will improve quality or reduce the cost of care, he added.

Doctor Nesbitt was commenting on the conclusions of an advance report by the House of Representatives Subcommittee on Oversight and Investigation.

"The subcommittee based its conclusions on studies which were never intended to be applied to the nation as a whole," Doctor Nesbitt said.

The report repeats charges which were made two years ago and which were repudiated at that time by the AMA and the American College of

Surgeons in extensive analyses of the statistics on which the subcommittee based its conclusions.

"The researchers who conducted the studies used by the subcommittee," said Doctor Nesbitt, "specifically said that their conclusions could not be extended to the United States as a whole. The studies were of small populations with no attempt to duplicate the statistical make-up of the country. To apply these results to the total American health care industry can only mislead the public. I do not say that there is no unnecessary surgery in the United States—doctors are not, after all, infallible, but I do say it is wrong to exaggerate the situation."

### Mandatory Second Opinions

The conclusions of the report, furthermore, call for mandatory second opinions for all patients advised by their physicians to have surgery.

The AMA is on record as supporting voluntary second opinion programs. The Association has also long recommended consultation between physicians for any difficult medical procedures.

But formal second opinion programs are only in the experimental stages and do not represent the panacea which the subcommittee report makes them, according to Doctor Nesbitt. So far, these programs have only dealt with small numbers of people and a limited number of procedures. Although some surgery has been deferred, the ultimate effect on the patient of this deferral has yet to be assessed.

Data is also not available to indicate how much surgery that was initially thought not necessary was eventually performed. Furthermore, many second opinions suggest that additional medical follow-up be performed and then the patient's conditions be reviewed for further treatment.

"It appears that the subcommittee, in recommending mandatory second opinion programs from Medicare and Medicaid patients, has also applied in this section of its report, limited, early results from a few studies to the nation as a whole without justification," said Doctor Nesbitt.

### Defends AMA Role

The conclusion of the report also called into question the effectiveness of Professional Standards Review Organizations, even though most of these new review bodies have been operational

**Dr. Tom E. Nesbitt (standing at left) of Nashville, Tennessee, President of the American Medical Association, addresses the AMA House during its interim meeting held in Chicago in December. Standing at the podium at the right is Dr. William Y. Rial of Swarthmore, Pennsylvania, the House Speaker. Others shown at the speakers' table are Drs. Daniel T. Cloud of Phoenix, Arizona, the AMA Secretary-Treasurer; John H. Budd of Cleveland, Ohio, immediate Past President of the AMA, and Hoyt D. Gardner of Louisville, Kentucky, President Elect. The West Virginia delegates, Drs. Frank J. Holroyd of Princeton and Harry S. Weeks, Jr., of Wheeling, serving in place of Dr. Richard E. Flood of Weirton, are seated at the first table immediately in front of Doctor Budd.**

for less than two years and recent evaluations have cited their usefulness.

The conclusion of the report also criticized the AMA in particular, and organized medicine in general, for their presumed lack of concern for the problem of unnecessary surgery. In reply, Doctor Nesbitt pointed out that the AMA has led the way in developing review criteria for the most commonly performed operations and it has consistently supported peer review mechanisms for medical and surgical care. The AMA-prepared criteria are used as guidelines in the Professional Standards Review Programs. Peer review mechanisms are in place in most communities, and there is evidence that they are, on the whole, working well. In addition, the AMA currently is under contract with the U. S. Department of Health, Education and Welfare, to produce criteria for surgical procedures.

## Referrals Invited For Cleft Palate Therapy Program

Referrals are invited for a three-week, intensive cleft palate speech therapy program this summer (dates to be announced) at the State Vocational Rehabilitation Center in Institute.

Twenty-five children between the ages of seven and 12 will be enrolled. Participants will be selected according to the severity of their speech and/or language problems and their potential for improvement in a short-term, intensive therapy format.

First priority will be given to those individuals who evidence no major physical handicaps, serious emotional problems or diagnosed mental retardation. Children from throughout the state will be accepted as potential candidates.

The cooperation of physicians is being sought in submitting the names of patients for consideration for this camp. Please include the child's name and age, parents' names, address and telephone number, and brief statement concerning the degree of repair of the cleft palate condition. Referrals and/or questions may be forwarded to: Barbara Moidel, M. A., Speech Pathologist, Division of Otolaryngology, West Virginia University Medical Center, Morgantown, 26506.

### Pilot Program in 1978

A pilot program was conducted for three weeks in August, 1978, at the rehabilitation center in Institute. Co-designers and sponsors of this cooperative effort were the West Virginia Division of Vocational Rehabilitation; the State Department of Welfare, Division of Crippled Children's Services, and the Division of Otolaryngology and Speech and Hearing Clinic at WVU.

Enrollment in the pilot project was restricted to six. Thorough speech, language and voice diagnostics, audiological assessments, physical examinations, ear, nose and throat evaluations, and dental examinations were conducted at the beginning of the program. Four hours of speech therapy were scheduled daily on both an individual and group basis. Speech therapy was accompanied by a structured recreational program, various field trips, arts and crafts, and self-concept development sessions.

Accomplishments of the program indicated that interagency cooperation was achieved in creating an innovative program, the first of its kind in the state. Continual evaluative procedures were conducted on each child, and management programs detailed.

Speech improvement was evidenced, with many children receiving in a three-week period an amount of therapy comparable to what might ordinarily take one year to receive. Therapy reports were forwarded to public school therapists in each child's respective school system to make possible follow-up therapy services. Meaningful

**Dr. L. Walter Fix (right) of Martinsburg, the State Medical Association's Vice President, discusses with Dr. Stephen D. Ward of Wheeling some of the issues before the American Medical Association House of Delegates during the House's interim meeting in Chicago in December. Doctor Ward, the State Association's President Elect and Editor of** *The West Virginia Medical Journal*, **also serves on the AMA's Council on Legislation. Doctor Fix was attending his first AMA business session.**

enrichment activities and counseling sessions, which appeared to contribute to the promotion of a positive self-concept and socialization skills, were provided.

## FTC Accreditation Intrusion Unwarranted, Says AMA

The American Medical Association recently called the Federal Trade Commission (FTC) attack on the Association's influence over accreditation for medical schools another case of government intervention into professional affairs that affects every individual in the United States —this time the education of physicians.

"The FTC comments to the United States Office of Education are based on theory rather than evidence," said C. H. William Ruhe, M. D., AMA Senior Vice President. "The Commission seems to have no quarrel with the standards set by the Liaison Committee on Medical Education (LCME) nor on the way those standards are applied. By its own admission," continued Doctor Ruhe, "the FTC does not assert that the AMA or its representatives have acted improperly in its accreditation decisions.

"However, according to the FTC, the two parent organizations (the AMA and the Association of American Medical Colleges [AAMC]) of the LCME could theoretically limit the number of people attending medical schools.

"The size of the enrollment in medical schools is based on such obvious factors as the space allotment of the medical school facility, the size of the faculty, and the financial resources of the institution. The AMA has worked to expand the number of medical schools and the number of graduates. In the last 12 years alone, accredited medical schools have grown from 88 to 124, nearly doubling the number of medical school graduates," said Doctor Ruhe.

The LCME membership includes six AMA appointees, six AAMC appointees, two public members, one member appointed from the Department of Health, Education, and Welfare, and two non-voting student members. "The AMA believes that this configuration meets the requirements set forth by the Office of Education. It is vital to the continuing excellence of medical education, and the education of other professional groups, that those organizations most familiar with the necessary standards oversee the accreditation process. There is a built-in check and balance in the LCME membership. The FTC's attack is unwarranted and disruptive to the process of accrediting professional schools," Doctor Ruhe concluded.

## Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1979, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

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| Mar. 23 | Charleston | Sixth Annual Newborn Day |
| April 6, 7 | Morgantown | Cancer Teaching Days |
| April 7 | Wheeling | Medicine Day—Infectious Diseases |
| April 20-21 | Morgantown | Patient Communication and Compliance |
| April 21 | Wheeling | Surgery Seminar |
| May 10-11 | Morgantown | Health Officers' Conference |
| May 18-19 | Morgantown | Internal Medicine Day |

## State 4-H Girl Wins First AMA Scholarship

A West Virginia high school senior who has spent half her life in 4-H projects has won the first 4-H scholarship presented by the American Medical Association Education and Research Foundation.

Betsy Law, 17, who lives on a dairy farm near Lost Creek and participated in a year-long 4-H project on the use and abuse of drugs when she

was only nine years old, was named recipient of the $500 award at the recent annual 4-H Congress in Chicago.

In addition to the scholarship, Betsy will be the guest of the AMA at the 32nd National Conference on Rural Health in St. Paul, Minnesota, in April.

In her lengthy involvement with 4-H, the South Harrison High School senior has aided her classmates and fellow citizens of Harrison County as she served as a worker and spokesman for programs on nutrition, drug abuse, eye care, physical fitness and body care and grooming.

Of the 32 health projects she has developed over the past nine years, 29 have taken blue ribbons at county and state levels, and three placed second.

Betsy's most current project is the "Vial of Life" campaign in which her Rockford Rockets 4-H Club is assisting the Stonewall Jackson Civics Club in Clarksburg with distributing small vials in which health and medical information on each family is placed and the vials then put in the refrigerator. A sticker in the front window of the home indicates that the information is in the right hand corner of the refrigerator so that in case of fire or illness, rescuers can immediately know the usual health condition of the ill or injured person, any medications they are taking, allergies to drugs, etc. As a result of information contained in the vials, lifesaving measures have already been successfully undertaken for victims in two documented instances.

#### Pleased At Selection

The oldest of the three children of Mr. and Mrs. Edison Law, Jr., Betsy has two brothers, Richard, 16, and nine-year-old Fred, both of whom are also active in 4-H.

A member of the National Honor Society, Future Homemakers of America, and the Junior Drama Club, Betsy served last year as President of the Student Council and photographer for the high school yearbook.

She was also chosen for inclusion in the 1978 edition of "Who's Who among American High School Students."

Hubert A. Ritter, M. D., of St. Louis, President of AMA-ERF, said the Foundation is pleased at the selection of Betsy as recipient of the first AMA-ERF scholarship in 4-H. "From the careful judging of all the candidates, it is clear that this young lady represents a large segment of our youth population dedicated to development of their personal capabilities and service to their fellow citizens," he said.

Betsy was one of 50 nation-wide finalists among more than 300,000 young people who participated in 4-H health projects during the 1977-78 4-H year.

## Over-All Health Emphasized In AMA Diet Booklet

The American Medical Association's new guide to losing weight—"The Healthy Approach to Slimming"—is off the press this winter, with new pointers on how to take off the pounds and keep them off.

The AMA shifts its approach from emphasis on weight consciousness to stress of overall health consciousness in this new pamphlet. For health consciousness, exercise may be equally as important as diet and nutrition.

"Although overeating is probably the major cause of overweight, physical inactivity contributes greatly to the problem," the pamphlet states.

For the first time, the AMA offers sample diets—of 1,600 calories and 1,200 calories—for the guidance of those seeking to lose weight.

There is new stress on the importance of exercise in the overall improvement of health and in burning up the calories that otherwise would go to fat.

#### Suggested Weight Tables

Tables of suggested weights for men and women according to height and build are included, to assist dieters in setting goals. Also listed are the four basic food groups suggested for optimum nutrition, along with calorie figures for each.

The AMA's booklet provides no encouragement for those seeking a quick, painless way to lose weight without diet and exercise. It takes time, and it takes will power.

There are no short cuts. To take off excess pounds and keep them off requires an altered approach to eating for the rest of your life.

"If your motive is to lose weight quickly so that you can get back to thick milkshakes, 12-ounce steaks and high-calorie bedtime snacks, you are probably going to have lifelong weight problems," the booklet cautions.

More than half of adults in the United States are either overweight or obese, the AMA declares. Obesity is usually defined as 20 per cent or more above ideal weight.

Excess weight is a handicap to personal appearance as well as a potential hazard to health. The overweight are more likely to have high blood pressure, hardening of the arteries, diabetes, gallbaldder disease and hernia. Excess weight also aggravates heart disease and arthritis.

The AMA lists a simple formula for dealing with calories. It takes 15 calories per pound each day to maintain your weight. For a 150-pounder, this would be 2,250 calories daily. Each pound of stored or extra fat contains 3,500 calories. Thus, to lose one pound a week, it would be necessary to cut the daily intake back to 1,750 calories daily, or to 1,250 calories each day to lose two pounds per week. Losing more than two pounds per week is not advisable, the AMA says.

Suppose you diet faithfully for a few weeks, drop five pounds, and then go on a food binge over the weekend? And the scale shows you've regained much of the loss. Don't panic and give up your diet in disgust. Most quickly regained weight is water, not fat. The point is, don't worry too much about short-term losses or gains. Weight loss is a slow process. A realistic dieter who has more than eight or 10 pounds to lose will think in terms of months, or even a year, instead of weeks.

In planning the diet, get a calorie counter and keep records. Always plan an adequate breakfast and lunch. Too few calories and too little protein (meat and milk groups) early in the day may lead to snacking or overeating in the evening. Plan to have two servings each day from both the milk group and the meat group, and four daily servings from both the bread and cereal group and the vegetable and fruit group.

**Behavior Modification**

For most overweight persons, there is no medical justification for rapid weight loss or a nutritionally imbalanced diet, the AMA emphasises.

Reducing salons and health clubs are fine, if you can afford them. But you can exercise just as well at home. Another AMA pamphlet, "Basic Bodywork for Fitness and Health," offers a simple home exercise program. Passive exercise machines that purport to shake it off without effort on your part are useless.

Protein supplements aren't needed. Most people can and should get all the protein they need from ordinary foods. Use of drugs in weight control is rarely or never justifiable, the AMA declares. Diet clubs, such as Tops and Weight Watchers, can help many people gain control of their eating habits. And behavior modification may help.

"No one has ever conquered a weight problem without some kind of a change in behavior," the pamphlet states.

The booklet was prepared by the AMA's Department of Foods and Nutrition. It is available for $1.00 through Order Department, AMA, P. O. Box 821, Monroe, Wisconsin 53566.

# *Medical Meetings*

Feb. 23-24—Va. Chap., Am. Academy of Pediatrics, Williamsburg.

Feb. 23-27—Biofeedback Society of Am., San Diego.

March 1—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

March 7-9—Nurses Assn. of Am. College of Obstetricians & Gynecologists, Chicago.

March 11-15—Am. College of Cardiol., Miami Beach.

March 22-24—International Conference on Tuberculosis (Am. College of Chest Physicians), Orlando, Fla.

March 22-29—Am. Society of Clinical Pathologists, New Orleans.

March 24-28—Am. Academy of Allergy, New Orleans.

March 30-April 1—W. Va. Chap., AAFP, Charleston.

March 31-April 1—Am. Otology Society, Los Angeles.

April 2-5—ACS, Denver.

April 3-4—Am. Broncho-Esophagological Assn., Los Angeles.

April 6-10—Am. Assn. of Immunologists, Dallas.

April 22-25—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 23-28—Am. Academy of Neurology, Chicago.

April 26-29—ASIM, New Orleans.

April 30-May 4—Am. Occupational Health Conference, Anaheim, Calif.

May 9-13—Congress on Med. Education (AMA), Washington, D. C.

May 12-17—Ohio State Med. Assn., Columbus.

May 13-16—Am. Thoracic Society, Las Vegas.

May 13-17—Am. Urological Assn., New York.

May 24—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

June 10-12—Am. Diabetes Assn., Los Angeles.

July 21-26—AMA Delegates Summer Meeting, Chicago.

**Aug. 22-25—112th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.**

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 6-8—National Breast Cancer Conference (Am. Cancer Society), New York City.

Sept. 30-Oct. 2—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 22-26—ACS, Chicago.

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# Microsurgery: A New Horizon In Replantation And Reconstructive Surgery

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*The introduction of microsurgery and its clinical applications in replantation and reconstructive surgery are presented.*

SINCE the microsurgery technique for surgical procedures under the microscope was introduced in 1960 by Jacobson and Suarez,[8] microvascular anastomosis of blood vessels with external diameters of 0.5 to 1 mm. have become possible. The initial efforts of microvascular anastomosis were directed at digital vessels during replantation. With recent improvement in surgical expertise, instrumentation and intelligent selection of patients, reasonable success of replantation can be expected.

Success of replantation and experience with laboratory animals in microsurgery have encouraged surgeons to seek answers to difficult reconstructive problems. The first successful "free-flap transfer" in the world, transferring a flap to a distant area and revascularizing by microvascular anastomosis between the vessels of recipient site "defect" and flap, was performed by R. Daniel in 1973.[2]

In selective cases when surgical expertise and the instrumentation are available, reconstruction of an extensive soft-tissue defect exposing bones and tendons which formerly required long delay with multiple stages of surgical procedures associated with long hospitalization and increased morbidity can nowadays be performed in a single stage. In addition, there is less discomfort of immobilization from the distant flap (such as cross leg flap or abdominal flap) and significantly shorter hospitalization.[16,17,18]

There are almost unlimited possible applications of this microvascular surgical technique. Only a few, such as coronary artery bypass, anastomosis of superficial temporal artery to middle meningeal artery for revascularization of central nervous system, reanastomosis of vas deferens after vasectomy and reanastomosis of the fallopian tubes after tubal ligation, might be mentioned. The long-term results of these procedures still remain to be seen; however, the future of microvascular surgery is bright and promising.

### Case Histories

The case histories of eight patients from the Charleston area of West Virginia treated by the author using the microsurgery technique are presented. The cases include three replantations, two free-flap transfers, two revascularizations of the ischemic hand and fingers from possible occupational hazard, and one venous reconstruction with vein graft following acute trauma from ring injury.

*Case One*: A 47-year-old glass worker presented with amputation of the right wrist joint on October 13, 1975, from a large sheet of glass. On the same day, replantation of this hand was carried out by anastomosing the radial and ulnar arteries and dorsal veins of the hand. Postoperative recovery was uneventful, and the patient showed partial recovery of the function of his hand after undertaking further surgical procedure for the tendons and nerves. (Figures 1 and 2).

*Case Two*: A 25-year-old mechanic presented with amputation of the left thumb through the base on May 9, 1977. On the same day, replantation of this thumb was carried out. Subsequent-

**Figure 1. Traumatic amputation of right hand through the wrist joint.**

**Figure 2. Three weeks following replantation, hand and fingers show adequate circulation.**

ly, the patient showed satisfactory recovery of the function of this thumb and was able to return to work three months later. Five months after injury, the patient showed adequate range of motion of the joints and revealed sensations of pain and touch at the tip of the thumb. (Figures 3 and 4).

*Case Three*: This 10-year-old girl sustained amputation of the left middle finger from a ring injury on September 14, 1977. On the same day, replantation of this finger was performed. Four days later, she underwent another surgical procedure consisting of resection of the thrombosed anastomosis of the dorsal vein of the finger and vein graft. Following this second procedure, she showed satisfactory recovery of the function of her finger.

*Case Four*: This 42-year-old, white male sustained a ring injury of the left ring finger on March 30, 1977, resulting in a compound fracture of the proximal phalanx, laceration of the flexor and extensor tendons and circumferential laceration of the skin. Only a digital nerve and artery were intact. On the same day, this injury was repaired under axillary block. However, a few hours later he developed cyanosis and coldness at the tip of his finger. Eight hours later, he returned to the operating room, and two vein grafts into the dorsum of the finger were inserted under a microscope. Immediately after the second procedure, the circulation of the finger improved and the patient showed satisfactory functional recovery.

*Case Five*: A 20-year-old male presented with through-and-through shotgun injury of the right hand on February 15, 1976. The initial debridement and repair were carried out on the same day with a skin graft and dorsal flap. One month later, he returned to the operating room, and a bone graft to the missing shaft of the fourth metacarpal bone was performed, using the right iliac bone. At the same time, a free-flap transfer from the right groin to the dorsum of the right hand was carried out to resurface this area of skin and subcutaneous tissue. Anastomosis of the superficial circumflex iliac artery with a branch of the radial artery, and anastomosis of the superficial circumflex iliac vein and superficial epigastric vein with two distal branches of cephalic vein, were performed. These vessels had diameters of 0.7 to 1.5 mm. Postoperatively, the patient showed satisfactory recovery with partial functional return. With this type of injury

**Figure 3. Traumatic amputation of left thumb base.**

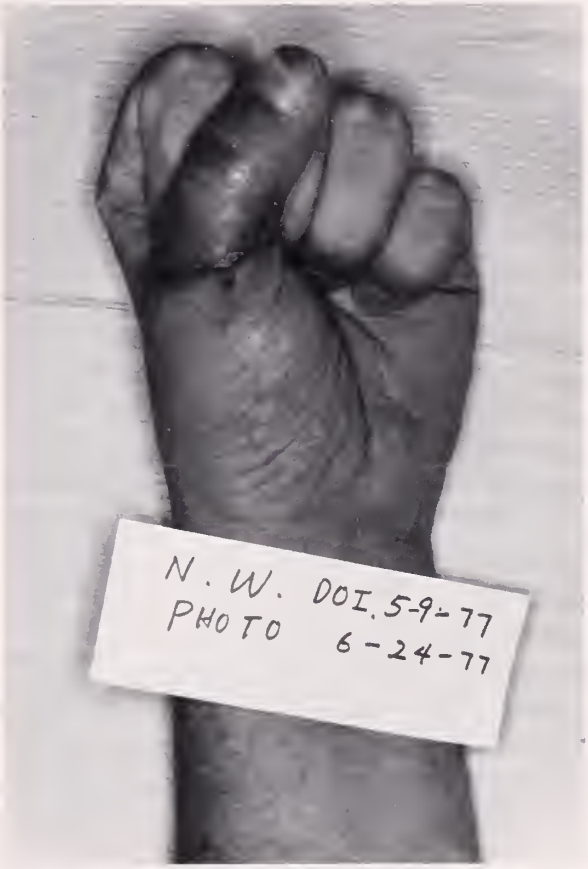


**Figure 4. Six weeks following replantation of the thumb with adequate circulation.**

of the hand, it is well understood that the distant flap such as groin, abdomen, or chest flap would provide adequate coverage, but this would involve two surgical procedures with significantly more discomfort and morbidity of the patient. (Figures 5 and 6).

*Case Six*: This 58-year-old, white female sustained a comminuted fracture of the right ankle on August 18, 1977, which was initially treated by an orthopedist. Unfortunately, she developed an area of skin and soft tissue necrosis over the Achilles tendon. Three weeks after injury, debridement of the necrotic skin over the Achilles tendon was performed, resulting in a defect of two inches x three inches exposing the tendon. A free flap from the left groin to this area of the ankle was performed by anastomosing the superficial circumflex iliac artery of the free flap with the posterior tibial artery and the common trunk of the superficial circumflex iliac vein and the superficial epigastric vein of free flap with vena commitante of the posterior tibial artery. This patient was known to have chronic bronchial asthma for which steroid medication had been given for three years. Initially, a cross leg flap was considered, but it was felt best to avoid this. With the cross leg flap, immobilization in bed longer than three weeks and more than a single surgical procedure are required, resulting in significantly more discomfort and morbidity. Using the free-flap transfer, the patient was able to get out of bed on the eighth postoperative day and was discharged two weeks following surgery.

*Case Seven*: This 41-year-old mechanic presented with pain and coldness of the right middle, ring and little fingers of a few weeks' duration on April 4, 1977. The tip of the middle finger showed superficial ulceration following minimal trauma which did not show adequate healing. Associated with his occupation, he had repeated trauma due to vibration of his hand with an air hammer working in a transmission service.

Obstruction of the distal ulnar artery and superficial palmar arch was suspected and was confirmed by angiography. Nine days later, surgical exporation of the right hand revealed a segment of distal ulnar artery which extended to the superficial palmar arch that was completely occluded with thrombosis. The digital arteries of the middle finger were also found completely thrombosed. Reconstruction of the superficial palmar arch extending from distal ulnar artery and a digital artery of the middle finger was per-

**Figure 5. Through-and-through shotgun injury of right hand.**

**Figure 6. Free flap transferred to right hand with microvascular anastomosis; flap from right groin.**

formed with vein grafts under the microscope. Postoperative recovery was uneventful and the patient returned to work after four months with complete functional recovery.

*Case Eight*: This 34-year-old welder presented with pain and coldness of the right ring and middle fingers associated with superficial ulceration of the tip of the little finger of two-weeks' duration on January 21, 1977.

Repeat trauma on his palms secondary to his occupation was suspected as the underlying etiology. Obstruction of the distal ulnar artery and superficial palmar arch was discovered at the time of surgery five days later. Operative angiography confirmed these findings. A Y-shaped vein graft from the distal ulnar artery to the junction of the superficial palmar arch and take off of the digital artery to the little finger was performed under microscope. Postoperative recovery was satisfactory, and the patient returned to work four months later after being cautioned to avoid repeat trauma to his palms. The patient showed no further difficulty when examined seven months after injury.


**Summary**

A brief introduction of microsurgery and its application in replantation and reconstructive surgery have been discussed. Eight cases from the Charleston area of West Virginia treated with this technique have been presented.


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Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

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# Pain — Man's Ruthless Enemy

JOHN C. KRANTZ, JR., Ph. D.
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*A brief world history of the discovery and use of pain-killing drugs is sketched, ending with the development of aspirin in 1853. Aspirin, however, was not used until 50 years later.*

MAN has ransacked the entire globe to obtain drugs with which he might achieve a surcease from pain. The effort originated in the primeval forest when a savage treated an arrow wound with the juice from a succulent leaf to relieve pain. The struggle remains unabated today in the laboratory and clinic of the chemist and physician. Man is constantly propelled in this endeavor by viewing the terror of excruciating pain among his friends and family or by personal experience. One is compelled to agree with Milton in *Paradise Lost*, when he declared, "Pain is perfect misery, the worst of evils; and excessive overturns all patience."

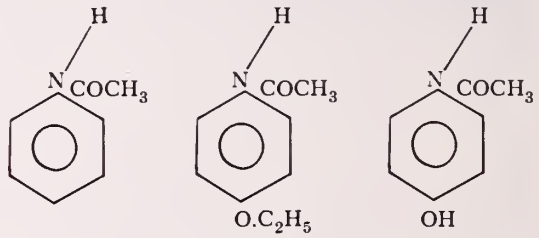
### Opium

In the early years of man's conquest of his relentless enemy, pain, his sole source of drugs was from the vegetable world. The ancients in the pre-Christian era became aware of the pain-allaying properties of the juice of the opium poppy. Unaware of the hazards of addiction, the opium poppy (opium and its extractive preparation Laudanum, named by Paracelsus and meaning "I praise") served as man's principal analgesic. However, in the absence of opium, the wines of the Orient and Europe were extensively used to subdue pain. When morphine was extracted from opium in 1807 by the German apothecary Serturner, it began to take the place of opium, owing to its greater reliability of analgesic action. However, the problem of addiction, although not completely understood, remained as one of the untoward results from the use of morphine as an analgesic.

A new hope for man's success in his battle against pain was soon to appear on the horizon. In September, 1882, five months after the death of Charles Darwin, Frederick Woehler died in Göttengen at the age of 82. Darwin's life work had resurrected out of the fossils of the earth's strata a new order in biology. Woehler's work had laid the foundation for a new order in every facet of man's life. He had made an organic compound out of inorganic matter. From ammonium cyanate, he had made urea in 1828. The Rubicon had now been crossed; the chemist had acquired the power of creating new kinds of matter; he was now a creator and most of man's endeavor's on the planet would be shaped and fashioned by this new discovery. Not the least of these would be thousands of new compounds to be tested for pharmacologic activity — among these, the non-addictive analgesics.

### Acetanilid, Phenacetin, Acetaminophen

In 1886, the German chemical industry produced acetanilid. The drug is an excellent analgesic and antipyretic without addictive properties. Prolonged use of the drug evoked blood dyscrasias: met- and sulfhemoglobin. To avoid this untoward effect, phenacetin was produced as shown in the formula. Although the new drug produced little effect upon the blood, after several years it was incriminated as causing kidney damage, and phenacetin has been replaced by acetaminophen, as shown in the formula:




**Acetanilid** **Phenacetin** **Acetaminophen**

Recently, acetaminophen, the last drug of this series, has been shown to evoke liver damage in heroic dosages.[1] A major deficit with each of the three drugs is their lack of anti-inflammatory effect. This renders the agents not a drug of choice in one of their major fields of usefulness, i.e., in the treatment of the pains, stiffness and swelling of the various arthritides.

### Aspirin

The vegetable world, however, has always provided help for the suffering of man. On the Aegean island of Cos, four centuries before the Christian era, Hippocrates recognized the value of the willow bark in the treatment of many diseases in which fever was a symptom. In 1763, the Reverend Edward Stone presented his ideas to the Royal Society in London. He contended that the willow bark was bitter like the Peruvian bark (containing quinine) and was useful as an

antipyretic. Soon, salicin was separated from the willow bark which, upon hydrolysis, yielded salicylic acid. The free acid is an escharotic, but its sodium salt was used in the treatment of rheumatic disease. Charles Frederic von Gerhardt synthesized aspirin from salicylic acid and acetic anhydride in 1853, *but it remained dormant on the shelf of the laboratory until the turn of the century.*

Felix Hoffman, associated with the Bayer laboratories, was using sodium salicylate to treat his father for a rheumatic condition. His father did not tolerate sodium salicylate very well and asked his son for another drug. Hoffman chose acetylsalicylic acid that had remained fallow on the shelf for half a century. Hoffman's father, who appears to be the first person to take aspirin, tolerated the new therapy well, and Hoffman gave the product to two clinicians, Dresser and Wohlgemut, and each confirmed his findings in a separate series of cases.

Soon, aspirin became the analgesic of choice and, after World War I, it invaded the United States in force. Today, the American public consumes approximately 20 tons of aspirin daily. It is analgesic and anti-inflammatory and is most helpful in arthritis. It has been said that there is no drug available that cannot be improved upon. Indeed, this is likely true, but more people have taken aspirin than any other drug with the possible exception of alcohol and caffeine. The world at large, and especially those who daily pass through the "narrow aisles of pain," can be thankful for such a drug.

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# Cancer Death Not Always Painful

A painful death from cancer is not inevitable, according to a report in the winter issue of Archives of Internal Medicine.

In a study of fatally-ill cancer patients at Columbia Presbyterian Medical Center in New York City, researchers found that approximately one fourth died without any pain or any need for pain-relieving drugs.

The study did confirm the notion that some cancer patients experience pain more frequently and more intensely prior to death than do non-cancer patients. But not all of them.

# Diagnostic And Therapeutic Measure For Copperhead Snake Bite

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*Fifty-three cases of venomous snake bites recently have been reviewed by McCullough and Gennaro.[1] Thirty-six cases led to amputation and 17, to soft-tissue slough. It is therefore obvious that some form of diagnostic measure, as well as therapeutic measure, should be added to minimize these complications. This article discusses a diagnostic and therapeutic measure that can be used in evaluating vascular complications due to venomous snake bite.*

THE patient, a four-year-old, white female, presented to a Parkersburg, West Virginia, hospital emergency room with the chief complaint of a Copperhead snake bite that had been sustained approximately 60 minutes prior to admission. At admission, her temperature was 98.6; pulse, 120; respiration, 28; and weight, 40 lbs. The patient appeared apprehensive, while complaining of pain in the right foot. Examination of the head and neck was unremarkable. The lungs were clear to auscultation. The heart was increased in rate with no thrills or murmurs. Abdominal examination was normal. Examination of the involved right lower extremity revealed an ecchymotic area below the lateral malleolus. Two puncture wounds were noted approximately one-half inch apart, presumably representing the Copperhead snake bite. Surrounding this area was early edema and some erythema. This area was exquisitely tender. The dorsalis pedis and posterior tibial pulses were present, equal and strong. Neurological examination was negative.

On admission, the patient was treated with intravenous antivenom and local hypothermia to the involved right lower extremity. Steroids were likewise started. This form of treatment was maintained for approximately five to six days. On the sixth hospital day, no improvement had been achieved. An ecchymotic area over the dorsal and plantar surface of the foot was noted. There was no motor or sensory function from the toes up to the mid-leg. The posterior tibial and dorsalis pedis pulsation of the right foot were not palpable at that time. The skin of the foot was cold to touch, and blebs and blisters were present.

Because of these findings, the patient underwent an emergency femoral arteriogram (Figure 1) and multiple fasciotomies of the anterior tibial compartment. There was marked improvement to the circulation of the right lower extremity with return of the motor and sensory functions.

**Figure 1. The patient underwent an emergency femoral arteriogram.**

**Figure 2. The postoperative arteriogram showed the anterior and posterior tibial arteries to be patent.**

Postoperative arteriogram (Figure 2) showed the anterior and posterior tibial arteries to be patent. Necrosis of the dorsum of the foot and the lateral aspect of the foot required excision and split thickness skin graft. The patient improved and was discharged without any neurological deficit.

**Comments**

In the management of venomous snake bite, there are three areas of prime consideration which should be applied to the individual patient before the onset of treatment. First, the value of cryotherapy or hypothermia applied locally to the affected extremity has been controversial, to say the least. Secondly, the basic principle of arterial circulation is dependent upon intravascular pressure and extravascular pressure. The blood elements themselves, the arterial system and, lastly, the state of the arterial wall, comprise the third area of consideration.

The pathogenesis of the course of this patient's illness can probably be explained as follows:

When the patient was initially seen, there was a puncture wound in the involved ankle, with a surrounding edema noted. The edema caused an increase in the extravascular pressure, leading into vasospasm and/or collapse both of the arterial and venous systems. This could probably be compared to the so-called anterior tibial compartment syndrome. Together with this, the involved extremity was subjected to local hypothermia which probably affected the micro-circulation to the involved extremity, resulting in sludging of red cells, minute thrombosis, and ischemia of the skin.

The treatment was directed mainly to overcome these factors. By doing a fasciotomy, the different muscles were allowed to expand; consequently, the arteries were then allowed to dilate

**Figure 3. Multiple fasciotomies to decrease extravascular pressure and re-establish vascular patency were performed. Necrosis of the dorsum of the foot and the lateral aspect of the foot required excision and split thickness skin graft.**

and a better perfusion of the involved extremity was achieved, as manifested by the postoperative femoral arteriogram and the fact that there was an improvement in the sensory and motor functions of the involved extremity. Except for the necrosis of the skin, we were able to salvage this extremity.

### Summary

In summary, this was a case of a snake bite involving the right lower extremity, and complicated by the appearance of arterial obstruction during the subsequent hospitalization. The arterial insufficiency was overcome by an aggressive approach which, up to this time, has not been recorded.

It is therefore recommended that diagnostic arteriogram be used more often in venomous snake bite to evaluate the vascular system of an involved extremity. Multiple fasciotomies to decrease extra-vascular pressure and re-establish vascular patency should be added to the treatment, thus decreasing or preventing ischemic necrosis of the involved muscles and/or skin.

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# Appendicitis: Still A Problem

FAILURE by parents and physicians to recognize appendicitis in its early stages has led to an increase in the incidence of ruptured appendixes in children, according to two pediatric surgeons at Children's Hospital, Columbus, Ohio. The report appeared in a recent issue of *Pediatrics*.

According to the physicians, morbidity is increased when appendicitis is allowed to progress to the point of rupture, due to increased postoperative complications.

"Responsibility for early recognition and prompt surgical treatment is borne by both parents and physicians," said the surgeons.

Parents should be familiar with the early signs of appendicitis including: cramping abdominal pain, abdominal tenderness (not necessarily on the lower right side), loss of appetite, nausea, vomiting and a slight to moderate fever.

"And it is the primary physician who must be painstakingly thorough in the evaluation of the child with abdominal pain and must be encouraged to seek surgical consultation when indicated," they remarked.

# Medical Grand Rounds

**From the West Virginia University Hospital**

Edited By
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*Associate Professor of Medicine*

# Byssinosis

*Discussants:*
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*Byssinosis is an occupational respiratory disease of workers handling several different vegetable dusts, but this disease has been studied most extensively in workers exposed to respirable cotton dust. Byssinosis is associated more with early-preparation processes and with lower-grade cotton. Workers experience chest tightness, shortness of breath, and cough on the first day back to work after an absence. The mechanisms and etiology are unknown. An attempt is made here to summarize many of the major papers.*

### Introduction

Byssinosis is an occupational respiratory disease found in workers exposed to several different vegetable textile dusts. This syndrome is characterized by the worker experiencing chest tightness, shortness of breath and cough occurring on the first day back to work after a weekend or a holiday, hence, the name "Monday Syndrome" or "Monday Tightness." Later, symptoms may extend to other work days, and clinical histories infer that it may lead to permanent dysfunction.

Byssinosis is a clinical diagnosis based on subjective findings and may or may not be accompanied by changes in the worker's ventilatory capacity over the shift. Byssinosis is derived from a Greek word meaning fine linen or flax, and this syndrome has been found in workers not only handling cotton but also flax and soft hemp. It has been described in all countries of the world where these vegetable textile fibers are processed.

Valic and Zuskin[1] ranked the biological activity of different vegetable textile dusts by studying five groups of non-smoking workers exposed to similar concentrations of cotton, flax, sisal, jute, and hemp. Using byssinosis prevalence and changes in $FEV_1$ over the Monday shift led to the following ranking of biological activity: Hemp > flax > cotton > jute > sisal.

### Historical Background

Although cotton and flax have been used in the manufacture of textiles since antiquity, the ill effects of these dusts were first recognized by Ramazzini in 1713. Jackson, in 1818, in England, and later Patissier, in 1822, in France, made similar observations about the ill health of workers in the textile industry. In 1831, Kay, in his paper entitled "Trades Producing Phthisis," made several relevant observations about the nature and distribution of disease among those working with cotton. He observed that those employed in the early-preparation processes were much more affected than those in later stages of preparation, and commented that coarse cotton caused a greater frequency of disease than the cleaner variety. He was one of the first to notice the Monday periodicity. The disease of textile workers was referred to as "Tracheal Phthisis," "Spinners Phthisis," and "Cotton Pneumonia," but not until 1877 was the word "byssinosis" coined by Proust.

In 1908, Collis, after studying the British textile industry, concluded that the health problems were mainly in the cardroom and early-preparation areas. In a study of cardroom workers, he found 73 per cent complaining of an asthmatic condition due to dust. He stated that there was

an increased prevalence associated with increasing length of employment, and noted that few cardroom workers stayed at this work for more than 20 years because it was so damaging to their health.

In Great Britain, several improvements were made in dust control in textile mills, and a Home Office Committee, in 1931, concluded that although respiratory problems still existed, the effects on the worker were not so severe since attempts had been made to control the dust. Meanwhile, in the United States, studies by the United States Public Health Service in 1933 led them to conclude that dust concentrations in United States textile mills were too low to affect adversely the health of workers.

Credit for the rediscovery of byssinosis is given to Schilling[2] who, in 1950, while looking into the excess cardiovascular deaths among Lancashire textile workers, found many workers suffering from respiratory problems — namely, byssinosis.

He later developed a grading scheme for byssinosis that is still used in epidemiological surveys today. The grading scheme is based entirely on symptomatology and can be obtained by use of questions Schilling developed and incorporated into the British Medical Research Council Respiratory Questionnaire. The grading scheme is as follows:

Grade 0 —No symptoms or chest tightness or breathlessness

Grade I —Chest tightness and/or breathlessness on Monday only

Grade II —Chest tightness and/or breathlessness on Mondays and other days

In 1963, the grading system was expanded to:

Grade ½—Occasional chest tightness on the first day back to work

Grade III—Grade II symptoms accompanied by evidence of permanent incapacity

This historical background has shown, and subsequent population studies have verified, that the symptoms of Monday chest tightness may depend on (1) specific occupation, (2) length of exposure, (3) quality of the raw cotton being processed, and (not previously mentioned but important) (4) individual susceptibility.

### Processing of Cotton

Cotton is by far the single most important textile fiber in the United States, with the United States being the world's largest supplier of pure and mixed cotton yarns. There are at least 300,000 workers exposed to cotton dust in the United States textile industry. Cotton is grown in three major geographical areas, (1) Mississippi Valley, (2) Texas, and (3) the Far West.

The cotton fruit begins as a floral bud covered by three leafy parts, known as bracts. The flowering stage is followed by the fruit (boll) developing from the ovary. The bracts remain as the boll opens and become the major source of trash in the lint when the cotton is harvested. Machine harvesting has entirely replaced the hand-picking of cotton; thus, more trash is included with the lint. It is these trash components, leaves, field weeds and, specifically, the bracts, that most investigators believe to be the etiologic agent in byssinosis. The lint itself does not seem to be implicated in any respiratory problems.

Once harvested, the seed cotton is sent to the gin where the lint is separated from the seed. The lint is packaged in bales and sold to the textile industry, and the seeds are sold to oil mills, where they are crushed for their oil content. Figure 1 illustrates the various stages of processing once the cotton lint reaches the textile mill. The early-preparation processes—opening, picking and blending — eliminate trash and separate the baled cotton into large tufts, which are formed into a continuous sheet known as a picker lap. The carding machine processes the picker lap into a thin, mist-like sheet by combing and aligning the fibers in a parallel fashion. The carding process also eliminates trash and seems to be the major dust producer in the cotton mill. The thin, mist-like sheet is drawn into a loose

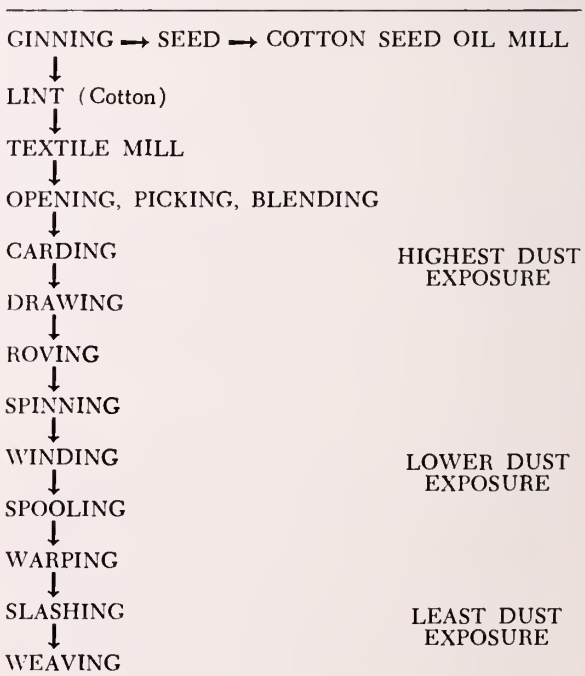


**Figure 1.**

rope-like strand known as a card sliver. The drawing process brings together several card slivers to form a single strand with more uniformity. This drawn sliver is further drawn out into a smaller strand, known as roving. Spinning is the final step in yarn preparation where the roving is twisted into a tiny strand (yarn). The yarn is then ready, after some consolidation steps, to be woven into cloth. Less respirable dust is generated as one proceeds from early yarn-preparation through weaving. Although there is a large amount of dust generated in the spinning process, most of this dust is the fly or the lint fraction.

### Prevalence Studies

The first modern prevalence studies of byssinosis came from Great Britain and, specifically, the Lancashire textile industry. As noted in Table 1, these studies showed a high prevalence of byssinosis in cardroom workers in mills processing coarse cotton and a much lower prevalence rate for those processing fine cotton, with spinning-room workers having a much lower prevalence than cardroom workers in all cases. Investigators believed that the amount of dust in the air at a textile mill depended on the quality of the cotton being processed.

Studies of cotton textile workers in the United States did not begin until after 1960, when McKerrow and Schilling[3] found workers with histories consistent with byssinosis in cotton mills in Alabama. Kilburn,[4] in 1965, and Bouhouys,[5] in 1967, studied small groups of textile workers and found several with typical byssinosis.

Table 2 shows most of the important prevalence studies done in the United States. The studies of Zuskin, done in South Carolina, and those of Schrag and Gullet, in North Carolina, found a similar prevalence of byssinosis. However, the studies done by Merchant and those of Imbus and Suh were done in modern cotton synthetic blend mills, which may account for some of the difference in prevalence rate found in spinners. Merchant, in a study of some 3,000 workers in both cotton and cotton synthetic blend mills, found an overall byssinosis prevalence of 18 per cent in cotton mills and seven per cent in synthetic blend mills.

It is difficult to compare byssinosis prevalence in all studies since, in most, the prevalence is expressed as a per cent of the population exposed without distinction being made to the different grades of byssinosis.

### Dust Concentrations

Airborne dust in a textile mill consists of broken cotton fibers, bracts, leaves, fungi and bacteria. The larger particles that are visible consist mainly of broken cotton fibers or lint, and their fragments, and are called fly.

Early observers related the prevalence of byssinosis to visible dust, but Roach and Schilling[6] were the first to quantitate prevalence of byssinosis with dust exposure. They noted that there was virtually no byssinosis when the total dust (dust of all particles sizes) was below 1 $mg/m^3$.

McKerrow[7] and others established the importance of the middle and respirable fractions of dust and found that the respirable particles of a size $<$ seven microns were closely correlated with symptoms. In later studies, Merchant[8] was not able to find good correlation between symptoms and total dust measurements, so he used a special method for collecting lint-free dust particles of a size $<$ 15 microns. He found a high degree of correlation between lint-free dust and byssinosis.

Figure 2 plots the prevalence of all grades of byssinosis against dust concentration. The broken line symbolizes total dust, and the solid line symbolizes total dust minus fly. In general, elimination of the lint or fly fraction from the dust enables one to correlate dust with byssinosis prevalence more accurately.

### Clinical Features

The usual history is that the worker begins to complain that his chest feels tight and that he has a cough and shortness of breath when he returns

**TABLE 1**

**Byssinosis Prevalence in British Textile Mills[21]**

| | *Byssinosis Cardroom Workers* | *Byssinosis Spining Room Workers* |
|---|---|---|
| Roach & Schilling (coarse cotton) | 55% | 2% |
| Lammers (clean cotton) | 13% | 1.5% |
| Molyneux (coarse cotton) | 58% | 20% |
| Fox *et al* | 23% | 6% |

**TABLE 2**

**Byssinosis Prevalence in U. S. Textile Mills[21]**

| | *Byssinosis Cardroom Workers* | *Byssinosis Spinning Room Workers* |
|---|---|---|
| Zuskin | 25% | 12% |
| Schrag & Gullett | 29% | 10% |
| Merchant | 20% | — |
| Merchant | 41% | 22% |
| Imbus & Suh | 26% | 4% |
| Bouhouys | 26% | 29% |

to work on Monday after a weekend or after a holiday. Most subjects have worked for several years before noticing the symptoms; however, some have complaints with much less exposure time. At first, the symptoms are confined only to the first day back to work and usually disappear shortly after leaving work. By Tuesday, the worker feels his normal self and usually continues to feel well for the remainder of the week. These same symptoms recur each Monday after a weekend away from the job. I would like to quote a colorful description of his symptoms that a textile mill worker gave to Schilling.[9]

"Monday is a different day to me. Getting to 11:00 I feel tight in the chest and short of wind, but I have no cough. Towards 5:30 I feel done and struggle for breath, and I can't walk at my ordinary speed. I am a dead horse on Monday, but I could fell a bull on Tuesday."

With continued exposure, the worker may gradually notice that his chest tightness and cough persist until Tuesday or Wednesday, and finally last throughout the week.

The conclusion that acute byssinosis becomes chronic is supported only by histories of workers who have become disabled, and has not been studied prospectively over a sufficient number of years. The chronic process is neither understood nor defined, so the acute response has been studied almost exclusively.

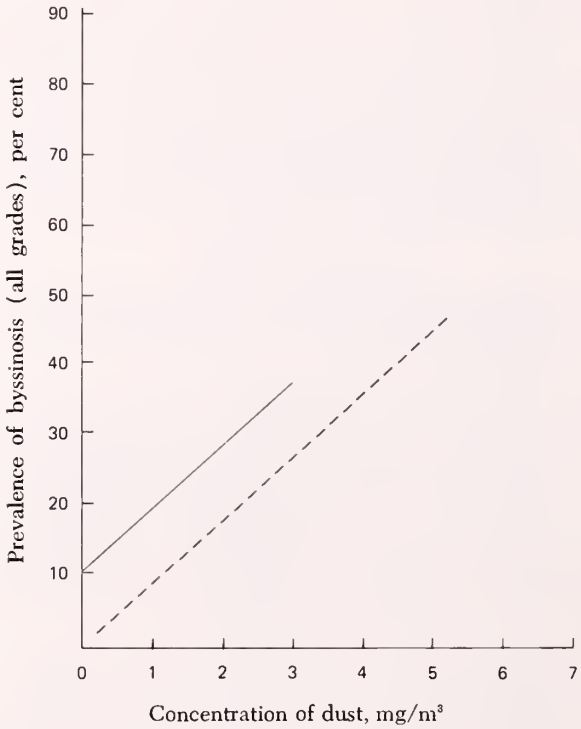


**Figure 2.**

**Physical Examination And Laboratory**

Physical examination and chest x-rays of byssinotic workers are usually normal. There are no physical findings or radiographic appearance pathognomonic for byssinosis. Merchant *et al*[10] studied 12 cotton textile workers with spirometry, closing volume, arterial blood gas measurement, and white blood cell count in the periphery and airway secretions before and four hours after exposure to cotton dust. He found an increase in the peripheral white blood cell count, particularly the PMNs, and an increase in the nasal PMN to epithelial cell ratio after exposure. Although the study had no control and the numbers are too small to show statistical significance, there did seem to be a trend toward WBC recruitment in the peripheral blood and in the airway secretions.

**Function Studies**

McKerrow,[11] in 1958, reported that symptoms are frequently associated with a fall in the worker's ventilatory capacity over the workshift. Objective measurements of changes in ventilatory capacity have served an important role in the evaluation of workers, and many tests, including spirometry, closing volume and body box plethysmography have been used for evaluation of lung function. Spirometry has proved the best for epidemiological surveys.

The charactertistic nature of byssinosis is a fall in the ventilatory capacity following the worker's return to work. This effect is characteristically seen on Monday, with serial measurements of the $FEV_1$ and FVC showing a decline from morning to afternoon. The decrement on Monday is nearly always greater than that seen later in the week. Subjects with byssinosis usually show a decrease in flow rates after three to four hours of exposure to dust. The evidence of no decrement in $FEV_1$ does not preclude the diagnosis of byssinosis in workers with symptoms; furthermore, some believe that symptom-free workers who have a reproducible decrement in the $FEV_1$ of 10 per cent or more should be managed as if they have byssinosis. The dif-

**TABLE 3**
**Functional Grades in Byssinosis**

| *Functional Grade* | *$FEV_1$ (% of predicted)* | *$\Delta$ $FEV_1$ % (over the shift)* |
|---|---|---|
| F 0 | > 80 | −4 to 0 |
| F ½ | > 80 | −9 to −5 |
| F I | > 80 | −10 or > |
| F II | 60-79 | ------ |
| F III | < 60 | ------- |

ference in the pre- and post-shift $FEV_1$ has been designated the $\Delta$ $FEV_1$ and is the basis of a functional grading system suggested by Bouhuys[12] in 1970. This functional grading system is based on changes in $FEV_1$ over the shift as well as the pre-shift $FEV_1$ to predicted. Table 3 illustrates this grading scheme and is explained in the following grade system:

Grade 0 —No demonstrable acute effect of dust on ventilatory capacity and no evidence of chronic ventilatory impairment.

Grade ½—Slight acute effect, no chronic impairment

Grade I —Moderate acute effect, no chronic impairment

Grade II —Evidence of slight to moderate irreversible impairment of ventilatory capacity.

Grade III—Evidence of moderate to severe irreversible impairment

The above functional classification has been used as a criterion for removing those exposed workers who showed evidence of pulmonary impairment from hazardous areas and for preventing new workers with evidence of impairment or reaction from being assigned to hazardous areas.

The association between acute symptoms and spirometric responses to cotton dust and pulmonary insufficiency in textile workers is supported by strong clinical inference from cross-sectional studies. The only prospective study reported, however, found no evidence that reactors or those with clinical byssinosis showed a greater decline in lung function over time than did other cotton workers.

### Etiology

The mechanism by which cotton or other vegetable dusts cause narrowing of the airways is not thoroughly understood, but there are three major theories for the mechanism of the acute process in byssinosis:

1. Nonantigenic histamine release
2. Endotoxin activity
3. Immunologic mechanism

**TABLE 4**

| | *Byssinosis* | *Asthma* |
|---|---|---|
| Timing | 4-6 Hours | Variable |
| Continued Exposure | Better | Worse |
| Relation of Symptoms and $\Delta$ in Function | Variable | Clearly Related |
| Signs | No Wheezing | Wheezing |
| Atopic History | Rare | Common |

*Histamine release*:

Some of the similarities between asthma and byssinosis suggested to early investigators that histamine or a histamine-like activity may be involved. The presence of histamines in cotton dust was first demonstrated in the 1930s. Later, Haworth and MacDonald[13] suggested that an antigen in cotton dust might release histamine from the lung, thus causing bronchoconstriction. The Monday phenomenon might then be explained by accumulated histamine stores over the weekend, with release on Monday with exposure. Once the histamine stores were depleted, mild symptoms, or no symptoms at all, would occur the remainder of the week. Nichols[14] found a heat stable component predominantly in the bracts of the cotton plant which had histamine-liberating activity. Antweiler[15] found smooth-muscle constricting activity to be most active in the pericarps and bracts of cotton plants.

Wet spinning flax and washing cotton have been found to decrease significantly or eliminate byssinosis in subjects exposed to dust arising under these conditions. Merchant *et al*,[16] in experimental exposure trials with steamed cotton, found that the steaming process produced less biologically-active dust.

*Endotoxin mechanism*:

Both bacteria and fungi have been found in great quantities in the cotton textile mills, and various investigators have attempted to show significant relationships between microorganisms and byssinosis. The lack of an incubation period and fever, along with the recurrent nature of chest tightness followed by remission after leaving the mill, was against this explanation.

An endotoxin theory was then considered. Pernis[17] suggested that the symptoms of byssinosis were due to release of a histamine-like substance following inhalation of gram negative endotoxin found in cotton dust.

**TABLE 5**
**Dust Control**

1. Dust removal before it enters the mill
   - A. More cleaning at the gin
   - B. Steaming or washing cotton
   - C. Genetic manipulation
     caducous bracts
     change bract with senescene
   - D. Picking cotton before boll opens (green boll)
2. Dust control within the textile mill
   - A. Oil additives
   - B. Dust capturing and ventilation
   - C. Increase usage of synthetics
   - D. Education of employees

*Immunological mechanism*:

Early investigators familiar with the association between allergy and asthma suggested that allergy to some component of cotton dust might be involved in the etiology of byssinosis. Byssinosis does not fit the clinical picture of asthma, as noted in Table 4. Later, Popa[18] found no relation between the prevalence of byssinosis in textile workers and positive skin tests.

Massaud and Taylor[19] proposed an immunological mechanism unrelated to skin reactivity, and suggested that there are circulating antibodies present which damage the capillaries and small airways. They found precipitating antibodies to parts of the cotton plant in higher titers among cardroom workers than non-carders and among cotton workers than non-cotton workers. They suggested that the magnitude of the reaction was determined by the amount of available antibody, and that the symptoms of byssinosis were produced directly by the action of antigen-antibody complexes. As a result of the Monday reaction, less circulating antibody would be available Tuesday and, as a result, fewer complexes would be produced and the reaction less severe. Taylor *et al*[20] later reported the isolation of a condensed polyphenol which, on inhalation of an extract of this material in a double blind study, produced typical chest tightness in byssinosis but no symptoms in those without typical byssinosis. Although a type III pulmonary reaction is suggested by their findings, the lack of chest x-ray changes typical of type III reactions, and the lack of granulomatous reaction of the lung, pathologically, is somewhat against this theory.

**Prevention**

Although significant gaps exist in our knowledge about the specific etiological agent and the exact mechanism of the airway reponses, we do know that dust control seems necessary to prevent disease among cotton textile workers. Dust control measures can either be instituted before the cotton reaches the mill or within the mill. Table 5 shows some of the newer techniques used for dust removal before cotton enters the mill, as well as measures to reduce the workers' exposure to dust within the textile mill itself.

Besides dust control measures, periodic medical surveillance should be implemented. Medical examinations may identify those workers who react to the dust and who can be removed before they develop any permanent impairment. Initial medical evaluation should include questions about past occupational exposures. Spirometry should be performed initially, then at periodic intervals before and after the workshift.

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112th ANNUAL MEETING

of the

# *West Virginia State Medical Association*

## *The Greenbrier*

AUGUST 22-25, 1979

# PLAN NOW TO ATTEND

# *A message from . . .*

# *The President*

## FEWER REGULATIONS, PLEASE!

The West Virginia Legislature is moving toward the end of its regular 60-day session at this writing. Generally, it has taken the stance of a more conservative body—perhaps reflecting what many interpret as the tenor of the times.

Hopefully, this will mean a slowdown in regulation. Certainly, everything we can do to inform lawmakers of the burden of regulatory controls, and the administrative time and effort necessary to complete countless forms and the like, will be most helpful as we try to serve our patients better.

In the area of cost containment and effectiveness, the figures continue to show heartening and most impressive results from the Voluntary Effort Program across the nation. It was particularly gratifying to note that a small hospital in our own state proudly reported that it held its cost increase to 7.7 per cent in 1978, even though labor costs went up 7.5 per cent. The national inflation rate for last year was 9 per cent.

Lawmakers, and the public, need to constantly be reminded of this story. The last thing we need is an additional layer of regulations of any kind. Instead, we need breathing room to carry out our responsibilities. In the long run, we can do a far better job, on our own, in meeting the economic problems which harass everyone.

Robert D. Hess MD.

ROBERT D. HESS, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

**UNITY**

The record of effectiveness established by the American Medical Association in dealing with the 95th Congress is one of which our parent organization can be justly proud.

Among its successes were major roles in the demise of such medically offensive bills as:

—A bill to extend Federal Trade Commission jurisdiction to non-profit organizations, which would include the AMA, its component societies and medical-specialty societies. Along with eliminating Congressional sanction of the FTC's current anti-trust action against physician solicitation of patients, the bill's death is likely to help us if the FTC administrative judge's adverse ruling on the issue has to be carried as far as the federal courts.

—A Health Planning Act amendment that would have extended certificate-of-need provisions to purchase of new equipment for physicians' offices.

—A mandatory cost containment bill, as contrasted with the Voluntary Effort spearheaded by the AMA, the American Hospital Association, and the Federation of American Hospitals with splendid support from their state bodies.

—The proposed Clinical Laboratory Improvement Act, which would have set national standards for the training of lab technicians and harassed lab procedures in many physicians' offices.

—The drug regulation reform bill, which would have further muddled the development, distribution, and use of beneficial drugs.

This record of success is in sharp contrast to that of Labor which, in the same Congress, lost every legislative battle it considered important. This phenomenon of failure has been attributed to a diminishing membership (Labor now represents only about 20 per cent of the labor force) and a fragmented total effort on the part of those major labor organizations with lobbying capabilities.

A political lesson for physicians is obvious. It behooves us to tighten up and focus our own legislative efforts. There has been some tendency in recent years for specialty organizations to chart a separate legislative course. Labor's example shows us that such ventures can be self-defeating.

The other danger of diminishing membership seems not as critical. The American Medical Association represents somewhat over two-thirds of physicians in active practice in the United States. The figures for the West Virginia State Medical Association members who are also active AMA members are similar — about two-thirds are AMA members. These figures have not changed substantially in recent years. The relative constancy of these figures reflects the value AMA members attach to their organization.

The figures do point out the fact, however, that one-third of our members partake of a free ride in enjoying the benefits of having their causes espoused by the AMA at every level of organization. The AMA makes no effort to identify a cleavage in the interests of members and nonmembers. No cleavage exists.

The AMA represents you whether or not you are a member. We strongly encourage you, if you are not a member of the AMA, to consider joining so that you might feel a part of and contribute to your profession's effort to provide a strong and unified voice in the vital arena of political debate.

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**COMMUNICATIONS**

You just can't beat good communications.

While there has been a variety of problems over many years within the benefits and provider-payment mechanism of West Virginia's Workmen's Compensation Fund, an experience of recent weeks has offered at least some hope for improvement.

A physician in a northern county advised the State Medical Association's State Office that he

had four pending invoices going back as long as six months. There are, of course, significant numbers of billings that have been in the works for far longer than that. The physician asked for some assistance in obtaining payment for services he had rendered.

A letter, with the physician's documentation, was sent to Workmen's Compensation Commissioner George D. Blizzard II by the Association's State Office on January 12. It was stamped as received by the Commissioner January 15.

On January 18, Commissioner Blizzard wrote to the physician with the following information: On January 17, an employee of the Fund called the physician's office for copies of the four invoices, because some information provided did not match other data in the Fund's claim files. The copies were received on January 18.

"Invoices for services rendered . . . have been entered into the computer and are scheduled for payment on January 19," the Commissioner wrote. We are not aware of any further problems with this inquiry.

In terms of the Compensation Fund "big picture," this incident represented a small dilemma. The total amount of the four invoices, while obviously important to the physician from the standpoint of principle and good business practices, was $135. But something more important was involved.

The Commissioner's response was prompt. In two days, his staff was in touch with the physician's office. Significantly, some additional or clarifying information was needed, a situation that was delaying payment. Once that information was provided, the payment process moved quickly into gear.

There's some hope, on the basis of this example, that admittedly difficult and trying situations in the Workmen's Compensation fund can be resolved. Among other things, such success will require good communications and *complete, accurate* information from claimants, providers and employers.

We know physicians have been trying harder to get properly completed forms back to the Compensation Fund faster. Commissioner Blizzard has recognized this in statements made to a legislative subcommittee and to the Association. We hope physicians will continue that effort. It's clear that such cooperation, *and effective communications,* can make a difference.

**CAST OUT PARANOIA**

"Any institution, such as the medical profession, which is vital to the welfare and well-being of our people, can expect to be under fire and pressure from all sides. The greater our role in society, the more we will be in the spotlight." Those are the words of George T. C. Way, M. D., President of the Medical Society of the State of New York.

Doctor Way said that physicians "must not let the fear of what others, that is, government, bureaucracies and politicians . . . might do, deter our profession from its call to bring ever the best medical care for the most people." He added:

"So I say to all of you who are deeply involved in organized medicine: stop feeling defensive; cast out your paranoia; discard your feelings of inadequacy and ineptitude. You enjoy the respect and admiration of the American people and you will continue to merit that esteem as long as you meet two criteria: one, that you continue to practice the highest level of medical care; and two, that you continue to show concern and empathy for the individual patient. But you must ever be aware that high esteem with concomitant power confers upon the medical profession ever greater responsibility. . . ."

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**LICENSE DILEMMA**

A trademark of any session of the West Virginia Legislature in recent years has been a flood of bills by various paraprofessionals and others seeking their own licensing board. In the immediate past, such boards and licensing machinery have been set up for radiologic technologists, physical therapists and occupational therapists, at least.

This year, the medical technologists, opticians (again) and electrologists are among those wanting licensed status, with specific qualifications and other trappings. The fate of those bills was undetermined at this writing.

This general trend raises many questions, and not a few concerns. In a couple of instances, definitions in these licensing bills, if allowed to stand, literally would have set these groups up as individual practitioners in activities amounting to the practice of medicine.

For a time, a few years ago, the American Medical Association, American Hospital Association and Association of American Medical Colleges called for a moratorium on additional licensing legislation. The reasons included obvious increases in health care costs resulting from such laws.

The moratorium now is history, but the problems remain. Certainly, efforts by any paraprofessional or other group to upgrade itself are desirable. But a balance has to be struck with the cost of service provided. Some legislators are concerned about this, and so has been the Medical Association.

## Our Readers Speak

### Doctor Whittlesey, The Man

I read of the death of Dr. Fred Whittlesey in the December issue of the State Journal with great sorrow. As a former colleague, I could not but feel that his obituary, although giving relatively complete details of his medical career, did less than justice to him and gave no indication of the man himself. Aside from being a conscientious and sympathetic physician, Doctor Whittlesey had qualities and attributes that are indeed a rarity in most of our contemporaries. Much travelled, he was one of an elite group of persons who had made the journey from Vladivostok to Moscow on the Trans-Siberian Railway in the days of the Czar. A man of great sympathy and compassion, he was interested in all things and all people and, above all, he realized that the world did not end at the Rio Grande. Widely read, his tastes in literature were indeed catholic, and he was as familiar with "Goodbye To All That" as he was with "Pere Goriot." His memory for Edwardian music hall songs was excelled only by his ability to quote Kipling. He will be as sadly missed as his former friend and comrade, Ralph Maxwell. One might say of Fred, as Robert Whittington said of Sir Thomas More—"he was a man of angel's wit and singular learning, I know not his fellow."

W. K. C. Morgan, M. D.
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### Declares Women Slighted

In his special article for the January, 1979, issue of the *Journal*, Doctor Van Liere makes a strong plea for encouraging "young men" to contribute to the *Journal*. It is disappointing that an individual of his stature and known dedication to medical education can so cavalierly dismiss the female portion of the medical profession. Women now comprise about 25 per cent of medical school admissions and graduates in this country. A woman currently serves as Editor for the Medical Grand Rounds section of the *Journal*. And, women have contributed a number of articles to the *Journal* during the two years I've been receiving it.

I understand that there was probably no intent to slight women physicians. However, the editor's job is to edit, and "young men" could have been modified to read "young men and women," or "young physicians." *The West Virginia Medical Journal* is an official publication of the West Virginia State Medical Association and, as such, should be helping to rid the profession of prejudice against women physicians, not lending tacit support. I trust you will take this letter under serious consideration, and I look forward to your reply.

Ronica M. Kluge, M. D.
1358 Headlee Avenue
Morgantown 26505

(*Note*: Following is the reply to Doctor Kluge's letter above by Dr. Stephen D. Ward of Wheeling, Editor of *The Journal*.)

### No 'Disputing' Contention

Thank you very much for your recent letter. I can find no way of disputing your contention that "the editor's job is to edit" and that this editor failed to edit the phrase to which you object.

I likewise thank you for the editorial suggestions which you offer. Of the two, I would prefer "young physicians" because of the ambiguity that might be construed from "young men and women." The modifier "young" could be taken as applying only to men, leaving in doubt the general age category of the "women" referred to. Some women are, of course, sensitive to age references and thus might be offended. "Young physicians," however, would appear to be free from the possibility of offending anyone except perhaps middle-aged and older physicians such as myself. These latter groups, having suffered through decades of slings and arrows of outrageous slight are, however, generally docile and uncomplaining.

The *Journal*, I agree, should be helping to rid the profession of prejudice against women physicians if such prejudice exists. In this regard, I invite you to submit an article to the *Journal* describing the areas of prejudice toward women physicians to which you refer so that we might get a discussion started.

I personally feel reassured that no one will "cavalierly dismiss the female portion of the medical profession" in the *Journal* as long as we have cavaliers such as yourself willing to gallop to the defense of women.

Stephen D. Ward, M. D.
Editor

### Quality Control Not Mentioned

Neither the article on "Rural Primary Clinic Development in West Virginia" in *The Journal* in December, 1978, nor the editorial discussing it, notes one very important factor common in health delivery systems today—namely—quality control.

We understand the needs—social, economical, and political—for establishing these clinics; but we must seriously question the motives and concerns of those who promulgate yet another level of care without guaranteeing the citizens of West Virginia that the care given meets commonly acceptable standards.

At a time when the American public is demanding a guarantee of quality whether in autos or abdomens, and in a state with more med schools per capita than anywhere in the United States, attention should be focused on this aspect of health care.

We listen only to those who propagandize for lesser levels of care and we wonder how much citizens of this state will have to suffer before something is done for them, or when those who hustle for the federal buck will get conscientious enough to correct this situation.

Recent letters received from practicing physicians indicate that some of the rural primary care clinics established in West Virginia do provide an inferior level of medical care. No argument of the accessibility or convenience of the care they provide will suffice to gloss over the damning facts of the inferior care provided. Like most cemeteries, their clinics have been made convenient and quite accessible to their unfortunate clients.

Harry S. Weeks, Jr., M.D.,
Past President, West Virginia State Medical Association
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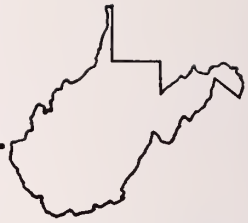
# GENERAL NEWS



## Convention Program Includes Liver Disease Symposium

A Brooklyn, New York, surgeon and a New York pediatrician will participate in a "Symposium on Liver Disease" during the 112th Annual Meeting of the State Medical Association August 22-25 at the Greenbrier in White Sulphur Springs.

The symposium will be held during the third general session on Saturday morning, August 25, beginning at 9:30.

Saul Krugman, M. D.

Harry H. LeVeen, M. D.

Among those speaking will be Dr. Harry H. LeVeen, Chief, Surgical Service, Veterans Administration Hospital, Brooklyn, and Professor of Surgery, State University of New York; and Dr. Saul Krugman, Professor of Pediatrics, New York University Medical Center, New York City.

Doctor LeVeen's subject will be "Surgical Treatment of Ascites," while Doctor Krugman will discuss "Viral Hepatitis: New Developments."

Annual Meeting activities will get underway with a 2 P. M. meeting of the Association's Executive Committee on Tuesday, August 21; the usual pre-Convention meeting of the Council at 9:30 A. M. on Wednesday, and the opening session of the House of Delegates at 2:30 P. M. on Wednesday.

A "Symposium on Drug Reactions and Interactions," as announced previously, has been scheduled as the first general session to be held following 9 A. M. opening exercises on Thursday.

Papers on joint replacement, pain and rheumatology will be presented at the Friday morning general session.

It also was announced previously that Dr. Hoyt D. Gardner of Louisville, Kentucky, who will be installed as President of the American Medical Association during the AMA House's Annual Meeting in Chicago in July, has been invited to address the first House session.

### Holds Post Since 1956

Doctor LeVeen, a native of Woodhaven, New York, has been Chief of Surgery at the Brooklyn VA Hospital since 1956. He also serves as consultant at the State University of New York Downstate Medical Center, New York-Brooklyn.

Certified by the American Board of Surgery, Doctor LeVeen is—among a number of organizations—a member of the American Surgical Association, American College of Surgery, Society of Experimental Biology and Medicine, Society for Surgery of the Alimentary Tract, Society for Vascular Surgery, and the Royal Society of Medicine (England).

His research fields of interest are in physiology and surgery, cardiac arrest, and hemorrhage and surgical technique.

He is a contributor to the medical textbook, *Physiologic Principles of Surgery* (Saunders, 1957), and is the author or co-author of some 160 scientific articles.

Doctor LeVeen was graduated from Princeton University and received his M. D. degree in 1940 from New York University Medical College. He also holds an M. S. degree in biochemistry from the University of Chicago.

### Former Society President

Doctor Krugman has been Professor of Pediatrics at New York University since 1960, having served as Chairman of the Department of Pediatrics from that year until 1974. He also was Director of Pediatrics at the University's hospital and at Bellevue Hospital in New York City from 1960 to 1974.

Certified by the American Board of Pediatrics, Doctor Krugman was President of the Medical

Board of Bellevue Hospital from 1969 to 1972, and President of the American Pediatric Society in 1972-73. He is the recipient of numerous awards, including the American College of Physicians' James D. Bruce Memorial Award (1972), The Grulee Award, American Academy of Pediatrics (1975), and the New York Academy of Medicine Medal (1978).

Doctor Krugman, a native of New York City, is a member of the World Health Organization Expert Advisory Panel on Virus Diseases, the Committee on Infectious Diseases, American Academy of Pediatrics, the Advisory Board of The Journal of Pediatrics, and Chairman of the United States Food and Drug Administration Panel on Review of Viral and Rickettsial Vaccines.

He completed undergraduate work at Ohio State University and the University of Richmond, receiving his M. D. degree in 1939 from the Medical College of Virginia. He did his postgraduate work at hospitals in Brooklyn and New York City.

Doctor Krugman is the author or co-author of 165 scientific articles.

#### Other Convention Information

The general Convention format once again will provide opportunities for breakfast, luncheon and other meetings, of a scientific and/or business nature, of the various sections and specialty organizations affiliated with the Medical Association. It is anticipated that most of these again will be scheduled on Friday, August 24.

Plans also call for the usual President's Reception on Wednesday evening, August 22, and the Saturday evening reception for new officers. The latter will follow the second and final House of Delegates session at 2:30 P. M. on Saturday which will bring the inauguration of Dr. Stephen D. Ward of Wheeling as President to succeed Dr. Robert D. Hess of Clarksburg.

More specific information relative to other general session topics and speakers will be provided in upcoming issues of *The Journal.*

Members of the 1979 Program Committee are Drs. Arthur A. Abplanalp, Charleston, Chairman; Marshall J. Carper, South Charleston; Cordell de la Pena, Clarksburg; George J. Hill II, Huntington; Robert H. Waldman, Morgantown, and Stephen D. Ward, Wheeling.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. D. Sheffer Clark of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's Convention.

## *Review A Book*

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal,* Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Understanding Arthritis and Rheumatism* (paperback), by Malcolm I. V. Jayson, M. D., and Allan St. J. Dixon, M. D. 234 pages. Price $1.75. Dell Publishing Company, Inc., New York, New York 10017. 1974.

*The Metabolic Management of the Critically Ill,* by Douglas W. Wilmore, M. D. 262 pages. Price $22.50. Plenum Publishing Company, New York, New York 10011. 1977.

*Current Medical Diagnosis and Treatment, 1979,* by Marcus A. Krupp, M. D., and Milton J. Chatton, M. D. 1,130 pages. Price $18. Lange Medical Publications, Los Altos, California 94022. 1979.

*The Multiple Sclerosis Diet Book,* by Roy L. Swank, M. D., Ph. D., and Mary Helen Pullen. 326 pages. Price $8.95. Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10017. 1977.

**Captain Donald C. Trapp checks the blood pressure of Commander Bill Baker at the Norfolk (Virginia) Naval Clinic. The Naval Reserve is a second career for the Wheeling Doctor. Doctor Trapp spends one weekend per month at the Norfolk naval base and two weeks on active duty every year.**

# Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1979, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

| | | |
|---|---|---|
| Mar. 2 | Charleston | Coping with Stress |
| Mar. 9 | Charleston | Arthritis Symposium |
| Mar. 23 | Charleston | Sixth Annual Newborn Day |
| April 6, 7 | Morgantown | Cancer Teaching Days |
| April 7 | Wheeling | Medicine Day—Infectious Diseases |
| April 20-21 | Morgantown | Patient Communication and Compliance |
| April 21 | Wheeling | Surgery Seminar |
| May 10-11 | Morgantown | Health Officers' Conference |
| May 18-19 | Morgantown | Internal Medicine Day |
| June 2 | Charleston | 6th Annual Whitewater Surgery Conference |
| June 8 | Charleston | 6th Annual Alumni Education Day |
| June 9 | Morgantown | Anesthesia Update |

**Visiting Professors**

(Morgantown)

| | |
|---|---|
| Mar. 15-16 | Edward Brunner, M. D., Chairman, Department of Anesthesiology, Northwestern University Medical School, "Current Concepts of Anesthetic Action" |
| Mar. 16-17 | J. Bradley Aust, M. D., Professor and Chairman, Department of Surgery, University of Texas, San Antonio, "Chemotherapy for Surgeons" and "Occult Bleeding from G-I Tract" |
| April 12-13 | Richard W. Stander, M. D., Director of Education, American College of Obstetrics and Gynecology, "Continuing Education—The Physician's Renaissance or Rip-Off?" and "White Man's Medicine in Red Man's Country" |
| April 26-27 | Richard J. Kitz, M. D., Anesthetist-in-Chief, Massachusetts General Hospital, Harvard Medical School, "The Pharmacology of Anti-Cholinesterase Action" |
| May 3-4 | Gloria E. Sarto, M. D., Professor and Vice-Chairperson, Department of Obstetrics and Gynecology, Northwestern University School of Medicine, "Pre-natal Detection of Inherited Disorders" and "Primary Amenorrhea; Gonadal Dysgenesis" |
| June 7-8 | Mortimer Rosen, M. D., Professor, Department of Obstetrics and Gynecology, Case Western Reserve University, "Antenatal Fetal Assessment: Electronic Monitoring of the Fetus and the Fetal Brain" and "Medicine and Anesthesia in Pregnancy: A Clinician's Guide" |
| June 8 | David J. Stewart, M. B., Anaesthetist-in-Chief, The Hospital for Sick Children, Toronto, "Anaesthesia for Cardio-Vascular Surgery in Children" |

## Educational Materials Offered By Cancer Society

The following educational materials are available to physicians without charge by writing the American Cancer Society, West Virginia Division, Inc.:

"Early Detection of Colorectal Cancer," a 22-minute, 16 mm. color film which follows two

asymptomatic patients through the procedures that diagnose their colorectal cancer and pinpoint the lesions.

Available with the film are two related ACS publications, "Early Diagnosis of Colorectal Cancer" and "Proceedings of the American Cancer Society's Second National Conference on Cancer of the Colon and Rectum."

The address is: American Cancer Society, West Virginia Division, Inc., 240 Capitol Street, Suite 100, Charleston 25301.

Please allow two weeks for film and material request.

## Record Number Of 241 Attends Conference

A record number of 241 persons, including 193 physicians, attended the 12th Mid-Winter Clinical Conference in Charleston January 26-28 at the Holiday Inn Charleston House.

Relatively good weather, in contrast to the severe winter storms occurring during the previous two conferences, and wide interest in a strong program of speakers were believed to be the main factors in the increased registration.

In 1978, the attendance was 170, including 151 physicians.

This year's registration also included 48 nurses, residents, students, dietitians, and others.

The annual continuing education event is sponsored by the West Virginia State Medical Association and the West Virginia and Marshall University Schools of Medicine.

## More Rehabilitation Services Endorsed By Council

The West Virginia State Medical Association's Council reviewed pending legislation and endorsed continued efforts toward development of medical rehabilitation services in West Virginia at its January 14 Winter Meeting.

In other action, Council elected to honorary membership in the Association Drs. W. V. Wilkerson of Whitesville, Duane A. Schram of Williamson, Clark K. Sleeth of Morgantown and S. William Goff of Parkersburg. It reclassified Dr. Gilbert A. Ratcliff of Huntington from a retired to an honorary member.

Council again was reminded by Association staff that cost containment legislation was expected to be the major health care issue in the 60-day regular session of the West Virginia Legislature which began January 10.

Work toward medical rehabilitation services beyond those available to the potentially employable at the West Virginia Division of Vocational Rehabilitation's Center at Institute has been led

**Some of the speakers and others participating in the 12th Mid-Winter Clinical Conference in Charleston January 26-28 are shown here. In the left photo are the speakers for Saturday morning, January 27, with Dr. Ray M. Kessel of Huntington, right, who presided at the session on "Current Practices in Immunization." From left, are Drs. Lee P. Van Voris, Huntington; Ronica M. Kluge, Morgantown, and Robert B. Belshe, Huntington. In the center, Dr. Joseph T. Skaggs of Charleston, left, Co-Chairman of the Program Committee, talks with Dr. John C. Norman of Houston, Texas, a speaker during the Saturday afternoon session on "Coronary Artery Disease." Exchanging notes on the right are Dr. Mabel M. Stevenson of Huntington, a speaker for the Sunday morning session on "Current Concepts in Hematology," and Dr. Robert H. Waldman of Morgantown, who presided.**

by a Medical Economics Subcommittee on Vocational Rehabilitation.

Steps were outlined to seek some initial planning funds from the Legislature to encourage community hospitals in various parts of the state to develop proposals toward medical rehabilitation beds and other services.

## State AAFP Chapter Schedules Assembly In Charleston

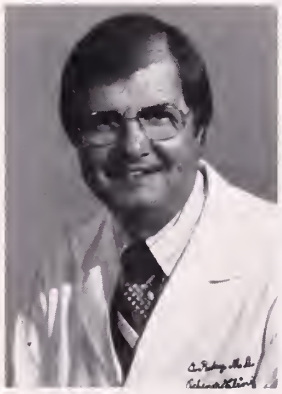
Some 16 medical subjects ranging from angina pectoris to blood transfusions will be discussed during the 27th Annual Scientific Assembly of the West Virginia Chapter, American Academy of Family Physicians March 30-April 1 in Charleston.

W. Jack Stelmach, M.D.

S. E. Preiser, L.L.B., L.L.M.

The meeting will be held at the Holiday Inn Charleston House, beginning Friday morning, March 30, and ending Sunday at noon.

A highlight of the assembly will be an address by the national President, W. Jack Stelmach, M. D., of Kansas City, Missouri, Saturday morning at 11:45.



George A. Pankey, M.D.

James M. Moss, M.D.

The assembly will open at 8:45 A. M. Friday following registration and booth visits in the exhibit hall beginning at 8 A. M.

State family physicians will be welcomed by Dr. Asel P. Hatfield of Harrisville, President of the West Virginia AAFP Chapter; Dr. Robert W. Coon, Dean and Vice President for Health Sciences, Marshall University School of Medicine, and Dr. Thomas W. Mou, Dean of the West Virginia University School of Medicine, Charleston Division.

There then will be remarks by the Program Chairman, Dr. Thomas P. Long of Man, President Elect of the West Virginia Chapter.

Dr. Kenneth R. Chasteen of Huntington will be moderator for the morning session at 9 A. M. The speakers and their topics will include:

"Angina Pectoris Diagnosis, Management"—Everett B. Wray, M. D., The Huntington Internal Medicine Group, Inc., Department of Cardiology, Huntington; "Management of Family Practices and Personal Financial Planning"—Clayton L. Scroggins, C.P.B.C., Clayton L. Scroggins Associates, Inc., Professional Management Consultants, Cincinnati; "How to Avoid Being the Target of a Medical Malpractice Suit"—Stanley E. Preiser, L.L.B., L.L.M., Preiser and Wilson Legal Corporation, Charleston.

### Friday Afternoon Session

Moderating the Friday afternoon session will be Dr. Israel M. Kruger of Logan. Speaking will be James Hugh Wiley, M. D., of Morgantown, Morgantown Orthopedic Associates, Inc.; Clinical Associate Professor of Orthopedics, WVU, and Chairman, Department of Orthopedics, Monongalia General Hospital, Morgantown, on "Office Orthopedics;" Robert B. Point, M. D., Associate Professor of Dermatology, WVU, Charleston Division, "Office Dermatology;"

James T. Spencer, Jr., M. D., Charleston, Ear, Nose and Throat Associates of Charleston, "Office Practice of Ear, Nose and Throat Diseases," and Ron Useldinger, M. A., National Director, Fitness Motivation Institute of America, San Jose, California, "Physical Fitness for the Busy Family Practitioner."

### Saturday Morning

The Saturday morning session will begin at 9 A. M. following an 8:15 A. M. movie, "Physical Examination of the Newborn," contributed by Pfizer Laboratories.

The speakers and their topics will be "Diagnosis and Therapy of Sexually-Transmitted Disease"—George Atkinson Pankey, M. D., Ochsner

Clinic, Department of Internal Medicine, New Orleans, and Clinical Professor of Medicine, Tulane University School of Medicine, New Orleans; "Psychotropic Drugs in Office Practice"—Andrew George Lefko, M. D., Psychiatrist, Chief Grade, Lebanon (Pennsylvania) Veterans Administration Center;

"Diabetic Renal Disease"—Nathan W. Levin, M. D., Head, Division of Nephrology, Henry Ford Hospital, Detroit, Michigan, and the address by the national AAFP President (as mentioned above).

Dr. Charles T. Lively of Weston will be moderator for the Saturday morning session.

**Saturday Afternoon**

Moderating the Saturday afternoon session will be Dr. Lewis N. Fox of Beckley. The speakers will be:

Kerkor Kassabian, Associate Professor, Northeastern University, Boston, and Boston-Bouve College, Department of Physical Education, "Taping and Strapping;" James M. Moss, M. D., of Alexandria, Virginia, Clinical Professor of Medicine, Georgetown University School of Medicine, "Diabetes in Children," and John P. Smith, M. D., Assistant Professor of Urology, Ohio State University College of Medicine, and Urological Associates, Inc., Columbus, Ohio. "Enuresis."

**Sunday Morning**

Pfizer again will sponsor a movie, "Tracheotomy in Cricothyreotomy," at 8:15 A. M. Sunday.

The Sunday morning topics will include "Drug Therapy of Dyspepsia"—Roland J. Weisser, Jr., M. D., Assistant Professor, Department of Family Practice, WVU, Morgantown, and Charles Wayne Weart, Pharm. D., Associate Professor of Clinical Pharmacology, WVU, Morgantown;

"Menopausal Therapy"—Jack S. Gruber, M. D., Director of Reproductive Medicine, Wright State University School of Medicine, Dayton, Ohio, and "Current Blood Transfusion Practices"—Mabel M. Stevenson, M. D., Medical Director, Tri-State Red Cross Blood Center, Huntington.

**CME Credit**

The program is approved for 19 hours of Category 1 (Prescribed) credit by the AAFP—and also is approved for 19 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association.

The Chapter's Board of Directors will meet on Thursday, March 29, at 7 P. M. and on Sunday at 1 P. M., while the meeting of the House of Delegates is scheduled for noon on Friday.

Other activities will include a beer and oyster party on Friday at 6:30 P. M. and cocktails and a banquet beginning at 6:30 P. M. Saturday.

Registration fees will be $60 for members, $80 for non-members, and $30 for nurses and physicians' assistants seeking CME credit.

There is no charge for students or residents, except for the banquet.

The banquet and cocktail party charge is $17.50 per person.

**Shown in the left photo, prior to the Saturday, January 27, dinner session of the 12th Mid-Winter Clinical Conference, are Sam Williams of Parkersburg, right, Executive Secretary, West Virginia Secondary School Activities Commission, the speaker for that session, and Dr. and Mrs. Ralph H. Nestmann of Charleston. Doctor Nestmann, who presided, is Co-Chairman of the Program Committee. In the right photo are two of the speakers for the Sunday morning session, Drs. Peter C. Raich of Morgantown, left, and David P. Lee of Charleston. The Conference is sponsored by the State Medical Association and the West Virginia University and Marshall University Schools of Medicine.**

## State Pediatrics Chapter Receives Award

The West Virginia Chapter, American Academy of Pediatrics, has received the 1978 Wyeth Outstanding Chapter Award for small chapters. The award consists of $1,500 and is supported by Wyeth Laboratories in Philadelphia.

The 1978 award was divided equally among three small chapters—West Virginia, Utah and South Dakota.

The West Virginia chapter was honored for its efforts which led to a dramatic reduction in the state's infant mortality rate; through continued participation in the West Virginia Committee for Perinatal Health, chapter members helped bring about a 20 per-cent reduction.

During 1978, the chapter also was honored for: spearheading passage of a law mandating thyroid testing for newborns, monitoring implementation of the existing newborn insurance coverage law, naming a committee to work with the state Health Systems Agency members, serving as the advocate of children, and a major increase in membership and level of activity.

Dr. Herbert H. Pomerance of Charleston is chapter Chairman.

**Susan Dillon, Managing Editor of the Journal of the Medical Association of Georgia, and Custer B. Holliday (right), Executive Assistant, West Virginia State Medical Association, were among 20 participants at a medical journalism workshop on January 20 in Chicago. Blake Kellogg (left), Professor of Journalism at the University of Wisconsin, was a workshop speaker. The meeting, conducted by Sandoz Pharmaceuticals, was part of a year-round program to provide design and writing help to small-circulation medical and pharmaceutical journals. Other southern editors at the workshop were from the medical associations of Florida and Tennessee, and the pharmaceutical associations of Florida and Georgia.**

# *Medical Meetings*

March 1—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

March 7-9—Nurses Assn. of Am. College of Obstetricians & Gynecologists, Chicago.

March 11-15—Am. College of Cardiol., Miami Beach.

March 22-24—International Conference on Tuberculosis (Am. College of Chest Physicians), Orlando, Fla.

March 22-29—Am. Society of Clinical Pathologists, New Orleans.

March 24-28—Am. Academy of Allergy, New Orleans.

March 30-April 1—W. Va. Chap., AAFP, Charleston.

March 31-April 1—Am. Otology Society, Los Angeles.

April 2-5—ACS, Denver.

April 3-4—Am. Broncho-Esophagological Assn., Los Angeles.

April 5-7—W. Va. Assn. of Blood Banks, Huntington.

April 6-10—Am. Assn. of Immunologists, Dallas.

April 22-25—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 23-28—Am. Academy of Neurology, Chicago.

April 26-29—ASIM, New Orleans.

April 30-May 4—Am. Occupational Health Conference, Anaheim, Calif.

May 2-5—Va. Society of Ophthalmol. & Otolaryngol., Charlottesville.

May 9-13—Congress on Med. Education (AMA), Washington, D. C.

May 12-17—Ohio State Med. Assn., Columbus.

May 13-16—Am. Thoracic Society, Las Vegas.

May 13-17—Am. Urological Assn., New York.

May 24—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

June 10-12—Am. Diabetes Assn., Los Angeles.

July 21-26—AMA Delegates Summer Meeting, Chicago.

**Aug. 22-25—112th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.**

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 6-8—National Breast Cancer Conference (Am. Cancer Society), New York City.

Sept. 21-23—Central Assn. of Obstetricians & Gynecologists, White Sulphur Springs.

Sept. 23-25—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 22-26—ACS, Chicago.

The West Virginia Medical Journal

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# Status Of Vaccines For Respiratory Virus Infections Other Than The Influenza Viruses

MAURICE A. MUFSON, M. D.
*Professor and Chairman, Department of Medicine, Marshall University School of Medicine, Huntington, West Virginia; and the Veterans Administration Hospital, Huntington.*

*Effective vaccines for respiratory syncytial virus, parainfluenza viruses, other adenoviruses and rhinoviruses, could significantly reduce morbidity from these infections. Due to the acute nature and brief duration of most viral respiratory disease, treatment with antiviral compounds does not seem a likely approach for these infections. Prevention of infection by immunoprophylaxis with effective vaccines offers an important modality for containing serious viral respiratory disease. A review of the status of investigational vaccines for respiratory viruses other than influenza viruses comprises this presentation.*

Numerous viruses can cause infection of the respiratory tract and account for considerable morbidity, as reflected in the millions of days lost annually from school and work, and a small but significant mortality.[1,2] Besides the influenza viruses, the major viral respiratory-tract pathogens include respiratory syncytial virus, the parainfluenza viruses, adenoviruses, coronaviruses and rhinoviruses. These viruses cause most respiratory-tract infections, especially among infants and children. Currently, vaccines are available only for influenza A and B viruses and two individual types of adenoviruses. Influenza virus vaccines are available for general use, but the adenovirus vaccines are restricted to use in military groups.[3,4,5,6]

### Importance of Respiratory Viruses

Respiratory-tract pathogens include many viruses from several different groups. The major groups of respiratory viruses include the myxoviruses, picornaviruses, coronaviruses, and adenoviruses. The myxoviruses, which as a group account for two-thirds of viral respiratory-tract infections, include the influenza viruses, parainfluenza viruses, types 1, 2, 3 and 4, and respiratory syncytial virus (Table 1).[7] The parainfluenza viruses and respiratory syncytial virus exhibit antigenic stability, and the serotypes of clinical importance have remained unchanged over the past three decades.

The rhinoviruses, a subgroup of picornaviruses, infect mainly the upper respiratory tract and represent the single most important cause of mild, undifferentiated upper-respiratory-tract disease (the common cold). Nearly 100 antigenically-different rhinoviruses have been identified (numbered sequentially starting with type 1); immunity to one type fails to confer immunity to other types.[8,9] Considering that an adult experiences an average of three to five colds a year, then sufficient rhinoviruses have been identified to account for these colds for 20 to 25 years without reinfection with any individual

**TABLE 1**
**Importance Among Adults and Children of Virus Groups Pathogenic for the Respiratory Tract**

| | Common Cause of Respiratory Tract Disease | |
|---|---|---|
| *Population* | *Upper Tract* | *Lower Tract* |
| Adults | Influenza<br>Rhinovirus<br>Adenovirus | Influenza |
| Children | Parainfluenza<br>Respiratory Syncytial<br>Coronavirus<br>Adenovirus<br>Influenza<br>Rhinovirus | Parainfluenza<br>Respiratory Syncytial<br>Coronavirus<br>Adenovirus<br>Influenza |

serotype. The multiplicity of rhinovirus types creates major problems in developing a common cold vaccine.

The coronaviruses, a relatively new group of agents identified within the last six or eight years, produce approximately 10 per cent of acute respiratory-tract diseases in infants, children and adults.[10] Among the human subgroup of coronaviruses, the several immunotypes are typified by two coronaviruses, namely, OC43 and 229E.

The adenoviruses, of which there are 34 types, account for 10 per cent of acute respiratory diseases in children and a smaller proportion of infections in the adult.[4] They represent an important cause of acute respiratory disease in special population groups, especially military recruits, among whom they account for the predominant number of acute respiratory-tract infections.[6] Of the different types of adenoviruses, specific types tend to spread among special groups: among military recruits, types 3, 4, 7, 14 and 21 predominate, and among children, types 1, 2, 5 and 7 cause the major portion of adenoviruses-associated respiratory disease. In the late 1950s, an inactivated adenovirus vaccine containing types 3, 4 and 7 was commercially available. The vaccine was used in the general population, although few type 3, 4 and 7 infections occurred in civilian adults. In the early 1960s, this vaccine was withdrawn from commercial use because it was found to be contaminated with non-human viruses which produced tumors in animals.[6] No other inactivated adenovirus vaccines have been developed, although the technology to produce such vaccines is available.

The importance of viral respiratory pathogens in adults and children varies depending upon the virus and the host (Table 1). In adults, the major causes of acute upper-respiratory-tract disease are the influenza viruses, rhinoviruses and adenoviruses, in decreasing importance. Influenza viruses are the predominant etiologic agents of serious, lower-respiratory-tract disease in adults. Although inffuenza virus can produce a primary pneumonia, influenza infection is often followed by bacterial pneumonia. In contrast, bacterial superinfection rarely complicates lower-respiratory-tract disease due to other viruses. The status of killed and live attenuated influenza virus vaccines has been discussed recently, and these vaccines are not further considered in this report.[11]

Most respiratory viruses, except rhinoviruses, cause acute lower-respiratory-tract diseases in infants and children (Table 1). Lower-respiratory-tract disease, including pneumonia, bronchiolitis and laryngotracheobronchitis in children, are caused mainly by the myxoviruses and less often by adenoviruses and coronaviruses. As a group, parainfluenza viruses and respiratory syncytial virus account for one-half to two-thirds of the pneumonia and bronchiolitis illnesses among children who require hospitalization.[7] Parainfluenza viruses, respiratory syncytial virus, coronaviruses, adenoviruses, influenza viruses and rhinoviruses also produce common colds and febrile upper-respiratory-tract disease in children.

### Priorities for Respiratory Virus Vaccines

Using this epidemiologic information, priorities can be established for the development of respiratory virus vaccines. Any plan for developing priorities must aim initially at immunoprophylaxis for serious disease. First priority must be directed to vaccines for viruses which produce a major number of acute, lower-respiratory-tract diseases and to vaccines which can be expected to have a wide general use. Vaccines for parainfluenza viruses and for respiratory syncytial virus comprise the first priority category (Table 2).

The second priority for vaccine development can be directed to coronavirus and adenovirus vaccines. Viruses of both these groups account for a lesser component of the total respiratory disease, and they cause less severe illnesses than the parainfluenza viruses and respiratory syncytial virus.[6] Coronavirus and adenovirus vaccines incorporating the commonly occurring serotypes would be recommended for children, and a polyvalent adenovirus vaccine of appropriate serotypes might be recommended for adults. Much of the acute, febrile respiratory-tract disease among military recruits is caused by advenovirus types 3, 4 and 7, and, it has been relatively easy to concentrate efforts on developing a vaccine for these three serotypes.[6] However, no adenovirus vaccine has been developed for the general population of adults.

The last priority for development should be directed to rhinoviruses. Since multiple rhino-

**TABLE 2**

**Vaccine Needs for Viral Respiratory Tract Pathogens**

| *Development Priority* | *Virus Vaccine* | *Applicability* | *Current Avail.* |
|---|---|---|---|
| First | Parainfluenza | Children | No |
| | Resp. Syncytial | Children | No |
| Second | Coronavirus | Children | No |
| | Adenovirus | Adults | Limited* |
| | Adenovirus | Children | No |
| Third | Rhinovirus | Adults | No |

*Adenovirus Type 3, 4, 7 vaccines recommended for use among military personnel only.

viruses have been identified, preparation of a vaccine containing sufficient rhinovirus types to attempt control of most of these infections poses a major problem. Rhinoviruses do not grow to high levels in the usual cell lines used for vaccine production, and thus it is very costly to produce sufficient antigenic mass for single-dose vaccine preparations which might stimulate protective antibody. If immunization with 10, 20 or more rhinoviruses is necessary for effective control of these infections, the cost of preparing a polyvalent rhinovirus vaccine for the common cold becomes prohibitive, even on an investigational basis.

Additionally, because rhinoviruses tend to appear and disappear annually, there may be periods when a small number of rhinoviruses cause most of the common colds in the population. During subsequent years, other types may prevail.[12] This pattern of serotype prevalence complicates the selection of vaccine types to be used in a given time period. A vaccine would have to contain rhinovirus types predominant during several time periods; otherwise, it would require frequent revision as new types are detected.

### The Status of Investigational Vaccines for Respiratory Viruses

Investigational vaccines under development for viral respiratory-tract pathogens include either inactivated or live attenuated preparations for parainfluenza viruses and respiratory syncytial virus, adenoviruses and rhinoviruses (Table 3). Inactivated trivalent parainfluenza virus and inactivated respiratory syncytial virus vaccines have proven ineffective (Table 4). A respiratory syncytial virus inactivated vaccine which had been formalin-treated and alum-precipitated was highly antigenic when administered to infants and children. However, when the next natural occurring epidemic of respiratory syncytial virus occurred, the vaccine recipients suffered more severe illness than control individuals, and two deaths occurred among children who received the vaccine.[13,14] This killed virus vaccine had, in an undefined manner, made these children more susceptible to severe respiratory syncytial virus disease during natural infection. This vaccine has been withdrawn from use and no other killed respiratory syncytial virus vaccines have been tested.

Inactivated rhinovirus vaccines are antigenic; volunteers immunized with inactivated rhinovirus vaccines and then challenged with homologous infectious virus resist infection.[15] The development of infection and illness was inversely related to the level of antibody induced by immunization. Two or more doses of vaccine were required to stimulate maximum antibody responses. Cross protection among the rhinoviruses does not occur. Thus, multiple viruses would have to be incorporated into any rhinovirus vaccine expected to have wide use.

The adenovirus type 3, 4 and 7 inactivated vaccine which was available in the 1950s was discontinued when it was found to be contaminated with an animal oncogenic virus.[6] It was withdrawn from use in the 1960s. All killed adenovirus vaccine research was subsequently stopped. When live virulent adenovirus was administered orally in enteric-coated capsules, the virus bypassed the respiratory tract and infected only the gastrointestinal tract. In this way, asymptomatic infection of the gut stimulated antibody and resulted in protection against the natural occurring respiratory disease.

Live virus vaccines hold the most promise for effective immunization against major respiratory viral pathogens. Attenuated virus strains can be produced by multiple passages of virus in tissue culture cells, and this procedure is frequently carried out at low temperatures, for example, 29°C. By this procedure, virus can be selected which preferentially grows at lower temperatures. When used as a vaccine, the multiply-passaged, lower-temperature-adapted virus was insufficiently attenuated in the case of parainfluenza virus type 1 in adults and respiratory syncytial virus in children (Table 3).[16]

Currently under study are *ts* (temperature sensitive) mutant respiratory syncytial viruses for use as live attenuated vaccines[17]. A *ts* mutant selected to replicate at lower than body temperature, but not at normal lung temperature, could infect the cooler nasal mucosa at 32°C but not the lungs at 37°C. When administered as nose drops, the vaccine virus would infect the nasal mucosa and stimulate protective nasal antibody. *Ts* mutants are selected by growing virulent virus in the presence of chemical mutagen in order to introduce random genetic lesions into the viral

**TABLE 3**

**Investigational Respiratory Virus Vaccines Previously Evaluated in Humans***

| | Vaccine | |
|---|---|---|
| *Virus* | *Inactivated Virus* | *Live Virus* |
| Parainfluenza | Yes (Types 1, 2, 3) | Low temperature multiply passaged virus (Type 1) |
| Resp. Syncytial | Yes | ts mutant virus<br>Low temperature multiply passaged virus |
| Coronavirus | None | None |
| Adenovirus | Yes (Types 3, 4, 7) | Enteric-coated capsules of virulent virus |
| Rhinovirus | Yes (some types) | None |

*Other than the influenza virus vaccines.

**TABLE 4**

**Summary of Volunteer Studies Evaluating Investigational Vaccines For Viral Respiratory Tract Pathogens**

| | | Results of Volunteer Studies | | |
|---|---|---|---|---|
| *Virus* | *Vaccine* | *Antibody Response* | *Degree of Attenuation* | *Protection Against Challenge or Naturally Occurring Illness* |
| Parainfluenza | Inactivated | Yes | ..... | No |
| | Live, low temperature multiply passaged | Yes | Upper respiratory disease occurred | NR* |
| Respiratory Syncytial | Inactivated | Yes | ..... | No |
| | Live, low temperature multiply passaged | Yes | Lower respiratory disease occurred | NR |
| | Live, *ts* | Yes | Under investigation | Under investigation |
| Adenovirus | Inactivated | Yes | ..... | Yes |
| | Live, virulent enteric-coated** | Yes | No illness occurred | Yes |
| Rhinovirus | Inactivated** | Yes | ..... | Yes |

*NR = not reported.
**Only a few serotypes tested.

**TABLE 5**

**Advantages and Disadvantages of Vaccines For Viral Respiratory Tract Pathogens**

| *Vaccine Class* | *Advantages* | *Disadvantages* |
|---|---|---|
| Live virus | Easy to administer | Communicable |
| | Produces local antibody | Reversion to virulent virus |
| Inactivated virus | *Non-Communicable* | |
| | | Multiple injections required |
| | | Injection of foreign antigen |
| | | Little or no local antibody produced |

genome. Using techniques to isolate mutant virus which grows at 32°C but not at 37°C, mutants having various degrees of temperature-sensitivity, and thus various degrees of attenuation, can be selected. *Ts* mutant viruses must be stable genetically and not revert back to virulent virus. At the present time, tests of *ts* mutants are under way in volunteers (Table 4).

### Attenuated Versus Inactivated Virus Vaccines

The disadvantages of inactivated vaccines are that they require injections (frequently multiple), they do not produce secretory antibody, and foreign antigen is injected (Table 5). Since respiratory viruses gain entrance to the respiratory tract mainly by inhalation or hand-mouth spread, protection from these infections requires the presence of secretory antibody in the respiratory tract.[18] Attenuated virus vaccines stimulate secretory antibody, but inactivated vaccines do not. Secretory antibody has been shown to be better correlated with protection from infection with respiratory viruses than serum antibody. The advantages of the attenuated vaccines are ease of administration (either intranasally or per oral) and induction of secretory antibody. The disadvantages are its potential communicability and the possibility that the attenuated virus may revert to a more virulent strain.

**TABLE 6**

**Recommendations for Development of Vaccines For Viral Respiratory Tract Pathogens**

| *Need* | *Virus Vaccine* | *Vaccine Class* |
|---|---|---|
| Immediate | Parainfluenza respiratory syncytial | Attenuated live virus<br>Attenuated live virus |
| Later | Coronavirus | Attenuated live virus |
| | Adenovirus | Enteric-coated virulent virus |

### Recommendation For Respiratory Virus Vaccine Needs

In summary, our needs for vaccines for viral respiratory tract pathogens are primarily live attenuated parainfluenza virus and respiratory syncytial virus vaccines and later live attenuated coronavirus and adenovirus vaccines (Table 6). Will we ever have a virus for the common cold, for the rhinoviruses? The problems of producing vaccines for rhinoviruses, namely, poor growth of these viruses in tissue culture, the necessity to use multiple types in the vaccine and then use of a single dose, only preclude its immediate development. Antiviral drugs may provide prevention of more common serotypes of rhinovirus infections. Overall, the first need is to protect

against the serious childhood virus respiratory infections. Effective vaccines for the parainfluenza viruses, respiratory syncytial virus, coronaviruses and adenoviruses would accomplish this goal.

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*A pleasure is none the less a pleasure because it does not please forever.*

—W. Somerset Maugham

# Problems In The Diagnosis Of Cancer Of The Colon By Barium Enema*

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*This paper emphasizes, first, the importance of the barium enema examination in the diagnosis of cancer of the colon, and the need for adequate preparation, high-quality films and good technique. The air contrast method should be used in any cases of suspected colonic cancer, and is particularly useful for discovering small polypoid lesions. In patients with predisposing conditions, such as ulcerative colitis or a previous history of bowel cancer, a high index of suspicion for malignancy is mandatory. A baseline barium enema at six to eight weeks post resection of a colonic neoplasm should be obtained because of the risk of development of recurrent tumors.*

SINCE cancer of the colon afflicts over 100,000 new patients each year, an early diagnosis, as reflected by the five-year survivals, is of utmost importance:

| *Extent of Involvment* | *5-Year Survival*[12] |
|---|---|
| Duke's | |
| Class A (muscosa and submucosa) | 72% |
| B (into muscularis) | 56% |
| C (through muscularis) | 13% |

The importance of adequate preparation and technique for the barium enema examination, and a high index of suspicion for colonic neoplasms, particularly in patients with predisposing conditions, cannot be overemphasized.

The barium enema is the principal diagnostic tool for detecting colonic malignancy beyond the reach of the proctoscope. The majority of large-bowel cancers is within the reach of the proctoscope, 61 per cent being in the rectum and sigmoid, 11.4 per cent in the descending portion, and 27.5 per cent being distributed throughout the remainder of the colon.[13] The signs and symptoms of tumors in the ascending colon are anemia, occult blood loss and pain. Tumors in the descending and sigmoid colon demonstrate stool changes, recognizable blood loss and cramping pain.[31]

### Radiographic Signs

Radiologically, colonic cancers appear as polypoid or fungating, infiltrative or annular, or obstructive.[24] Polypoid lesions, which appear as intraluminal filling defects, are the predominant lesions in the cecum and ascending colon. The annular carcinoma is a constriction, usually less than four to six centimeters long, and having overhanging edges. It may appear as the characteristic "napkin ring defect." Annular carcinomas, more frequently than polyps, lead to obstructive tumors.[24]

Some of the more unusual features of colonic carcinoma include: (1) calcification, which most commonly occurs in mucinous tumors, (2) perforation with fistula formation, and (3) intussusception. With the inflammatory reaction associated with perforation, a tumor may appear as a long stricture and must be differentiated from Crohn's disease and diverticulitis. Other common causes of segmental lesions, with narrowing,[27] include extrinsic neoplasms, inflammatory masses and ischemic colitis; less frequently, amebiasis, endometriosis, metastasis, lymphoma, radiation fibrosis, schistosomiasis, tuberculosis and ulcerative colitis are causes.[27]

### Barium Enema Technique: Case One

The following case exemplifies the absolute need for prior adequate preparation and careful barium enema examination.

A.R. is a 55-year-old female who complained of vomiting, abdominal pain, constipation and weight loss for the previous four months. Barium enema two months prior was reported as normal. Repeat examination (Figure 1) demonstrated a mass in the cecum. Right hemicolectomy was performed, with removal of an adenocarcinoma of the cecum.

Several inadequacies in the barium enema examination may be responsible for missing a lesion in the colon as large as that seen in Figure 1. The preparation of the colon limits the accuracy and value of the barium enema examination.[18] Miller states his five requirements for an adequate air contrast study as being (1) a clean colon, (2) suitable barium suspension, (3) adequate insufflation, (4) drainage of excess barium, and (5) adequate films. In addition, the flexures and loops of sigmoid must be opened and the rectal tip should not be inserted so far that it may obscure a lesion. Lesions are easily missed in the cecum because of its large size and the presence of feces, and in the rectosigmoid be-

*This paper was written while Doctor de Paredes was a fourth year medical student at West Virginia University School of Medicine, Morgantown.

cause of the overlapping loops.[10] In the sigmoid, lateral and angle views should be taken to see areas of the bowel hidden by overlying loops.

### Colonic Polyps: Case Two

D.D., a 74-year-old female with diverticulitis, was found to have a colonic polyp one year prior to admission. Barium enema (Figure 2) revealed a 1.5-cm. polyp with a one-cm.-long stalk in the descending colon. Miscroscopic study demonstrated malignant adenocarcinoma with stalk invasion.

Adenomatous polyps of the colon are common lesions in the general population. Welin[33] reported that in 36,000 consecutive air contrast studies, the incidence of colonic polyps was 12.5 per cent; this equalled the incidence found in routine autopsies. However, using the high kilovoltage technique in routine studies, Fiegel found polyps in only 7.5 per cent of patients. Cooley[5] found the barium enema air contrast method to be 90 per cent accurate in diagnosing colonic cancers. However, in another study[29] of 93 patients in whom a delay in the diagnosis of cancer of the colon was made, the lesions were missed on the barium enema in 47 patients. Although not all investigators[17] advocate the use of the air contrast method, Pascoo and James[23] found that more lesions are missed by conventional barium enemas with high kilovoltage technique than by the air contrast method. Lauer *et al*,[15] at the Mayo Clinic, had 6.9 per cent false negatives and 0.87 per cent false positives using the air contrast method. The air contrast method is particularly useful in demonstrating polyps less than one cm. in diameter, which are likely to be missed by routine barium enemas. A careful, complete study must be performed if a polyp is observed because of the possibilities of multiple polyps or synchronous tumors.

**Figure 1. This barium enema examination shows a large irregular filling defect in the cecum.**

### Benign versus Malignant Polyps

The management of colonic polyps depends upon the search for radiographic signs of malignancy. In a series of examinations of polyps, Enterline[9] showed an incidence of cancer of 4.2 per cent in those lesions less than two cm., of 40.4 per cent in those two to three cm., and of 53.3 per cent in those greater than three cm. in diameter. The most common causes for solitary filling defects in the colon are adenomatous and hamartomatous polyps, carcinoma, fecal impaction, and ileal prolapse.[26]

Wiot and Felson[34] have outlined the following criteria for their management of colonic polyps. A lesion less than 1.5 cm. with a long stalk is followed by repeat barium enema in six months and again in one year. If the polyp increases in size, or the stalk decreases in length, it should be excised. Polyps less than one cm. can be followed with a barium enema yearly. For polyps greater than one cm., or for sessile lesions, a biopsy or resection is done. Resection is routinely performed on lesions with an irregular surface, with increasing size, or on those which produce a defect in the colonic wall. Other signs of malignancy in a polyp[10] include a base size greater than the height, indentation of the colonic wall at the site of attachment, and irregular transition to the wall. Meticulous care in examining films is imperative because a small polyp which appears to have a short pedicle may actually represent the site of invasion, or a long pedicle may be coiled around an adenoma and simulate lobulation.[18] In addition, the presence of a small

**Figure 2. This barium enema shows multiple diverticuli and a 1.5 cm. polyp with a 1 cm. stalk in the distal descending colon.**

polyp is an indication for a repeat barium enema because of the possibilities of developing malignancy elsewhere in the colon.[18]

### Predisposing Conditions: Case Three

Ulcerative colitis, Gardner's syndrome, familial polyposis, chronic draining sinuses, ureterosigmoidostomy,[28] pelvic irradiation, and a history of bowel cancer predispose the colon to develop malignancy.

H.W. is a 31-year-old male with ulcerative colitis since 10 years of age. He was admitted because of cramping abdominal pain of three days' duration. Barium enema examination (Figure 3) revealed chronic ulcerative colitis with a stricture in the mid transverse colon. Total colectomy for adenocarcinoma, mucinous type, was done.

The risk of malignancy in the colon of patients with ulcerative colitis has been estimated to be three to four per cent,[7] which is 10 times greater than the general population. The average age of diagnosis of cancer in patients with colitis is 37 years, compared to 65 years in the population as a whole.

The development of cancer in patients with ulcerative colitis depends on the age of onset of the colitis, the extent of colonic involvement, and the duration of the disease. Patients with proctitis and proctosigmoiditis are probably at no more risk than the general population in developing cancer of the colon; however, when total colonic involvement occurs, the risk of malignancy increases 30 times.[13] The duration of the underlying disease affects the possibility of cancer occurring: the estimated risk of 10 years of the disease is five per cent; with 20 years, 25 per cent; and after 20 years, increasing by five per cent per year.[6] In addition, the younger the patient, the higher the risk for malignancy. The neoplasms tend to be multiple, flat, infiltrating, and mucus-secreting or undifferentiated, which worsens the prognosis. The development of a stricture in a patient with ulcerative colitis indicates the presence of malignancy unless proven otherwise. The colitic patients with cancer appear with an exacerbation of the colitis, except that their abdominal pain is unrelated to defecation or constipation.[14] The five-year survival of these individuals is 40 per cent.[14] Patients with total involvement should be treated with colectomy as a prophylaxis, or they should be followed regularly with barium enemas with precautions to prevent an exacerbation of their condition.

**Figure 3. This barium enema shows the chronic changes of ulcerative colitis and a stricture in the mid transverse colon.**

### Recurrent Tumors: Case Four

E.M., a 60-year-old male, was diagnosed in 1940 as having "chronic appendicitis." Thirty years later, a benign appendiceal tumor was removed. In 1971, a resection of the ascending colon for obstructing carcinoma was performed. Follow-up barium enema in 1974 is shown in Figure 4. In 1976, a mass in the distal descending colon was resected: microscopic examination revealed adenocarcinoma of the colon.

Multiple carcinomas of the colon occur in about six per cent of all patients with colonic malignancy. Ekeland and Rihl,[8] in a study from Malmö, Sweden, found multiple tumors in the colon in 6.5 per cent of patients, 4.6 per cent of

**Figure 4. This barium enema shows a mucosal irregularity in the distal descending colon, which was persistent on other films.**

the cases being synchronous tumors and 2.3 per cent being metachronous.[8] Moertel *et al*[21] found a 4.3 per cent incidence of multiple tumors in 6,012 cases of colon cancer. Agnew and Cooley[1] found an incidence of 5.4 per cent of metachronous lesions. More than half of the synchronous and metachronous tumors are associated with benign polyps.[8] Bussey[4] suggested that a coexisting adenoma in a patient with colonic cancer increases the risk of developing a synchronous lesion twofold. Polk and Spratt[24] found 121 recurrences in the follow-up of 386 patients in whom the initial lesion was totally resected. The interval recurrence rate was 10 per cent in the first two postoperative years, five per cent in the third and fourth years, and two per cent per year after the fifth.[24]

Of particular interest are recurrences at the anastamotic site. Speculation as to the etiology[10] include infiltration of the resection margins with tumor, genetically predisposed epithelium, and intraluminal seeding of tumor cells. Fleischner[11] found three cases in which suture was embedded in the recurrent tumor, and suggested tumor fragmentation and inplantation with suture as the etiology of the recurrence. The rate of recurrence in anastamoses in the distal colon is 11.3 per cent versus 5.5 per cent in the ascending or proximal colonic anastamosis, and is rare in the ileocolic anastamosis.[35] The different rates of recurrence may be related to varying susceptibilities of the bowel to tumor cells. The signs and symptoms include perineal discomfort, dull aching pain, abdominal mass, weight loss, constipation and rectal bleeding.

### Anastamotic Site

The normal postoperative radiograph may show constriction at the resection site from edema and spasm. However, by six to eight weeks,[2,10] the uncomplicated anastamotic site should have reached a stable form, and barium enema at this time can be used as a baseline. The normal anastamotic site is symmetrical, with a regular mucosa, and the amount of constriction is less than one cm. In patients with anastamotic recurrence, the site is irregular and may first show a unilateral defect, progressing to an irregular, circular constriction.[10] Polk and Spratt[24] have suggested that postoperative follow-up be carried out every two months during the first year, every three months in the second year, and every six months in the third and fourth years. Of extreme importance is the baseline barium enema at two months postoperative for evaluation of the anastamotic site. However, it must be emphasized that multiple tumors occur, and not only at the anastamotic site, so a careful, complete examination of the entire colon is mandatory.

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# Traumatic Right Ventricular Aneurysm Presenting As Tricuspid Regurgitation

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*A case of traumatic ventricular aneurysm presenting as tricuspid insufficiency is reported. A brief review of the literature is also presented. The patient in this case report also had hepatoma, and no definite relationship of tricuspid insufficiency to hepatoma could be established.*

CARDIAC injury from nonpenetrating chest trauma has become a common occurrence in the present era of high-speed transportation and mechanized industry. Often, no chest injury is apparent externally, and damage to the heart is overshadowed by severe trauma elsewhere.[1] The injury is usually well tolerated and often remains asymptomatic. On the other hand, when trauma is especially severe, death may result immediately, usually from cardiac rupture.[1,2]

Less frequently, trauma results in a regurgitant cardiac valvular lesion. The aortic valve is most often involved, with the mitral valve and associated structures a distant second.[1] Isolated traumatic tricuspid regurgitation is a rare condition but has been reported with increasing frequency recently.

Traumatic right ventricular aneurysm is quite rare.[3] We report a case in which a right ventricular aneurysm and isolated tricuspid regurgitation were diagnosed many years after closed-chest trauma.

### Case Report

The patient, a white male janitorial worker, was first seen by us in July, 1975, at age 39. Sixteen years previously, in 1959, he was in an automobile accident and sustained a severe blow to the anterior chest from the steering wheel. Two years later, in 1961, his local physician noted a cardiac murmur. An ECG revealed complete right bundle branch block. He had no prior history of rheumatic fever or cardiac murmurs.

About six months prior to this admission, he gradually developed weakness, anorexia, and dyspnea on exertion, progressing to dizziness and syncope with exertion. He also noted abdominal bloating and ankle swelling. Three months prior to admission he had to quit working because of his worsening symptoms. He had had a perforated ulcer 10 years previously. He denied the use of alcoholic beverages.

*Physical examination.* He was a cachectic, white male with slight cyanosis of the lips. The blood pressure was 90/70 mmHg., and the pulse 88/minute and regular. Respirations were 13/minute. The neck veins were distended to seven centimeters above the right clavicle at 45 degrees, and the V wave was prominent. A few scanty rales were noted over the bases of the lungs. The apical impulse was in the anterior axillary line in the fifth intercostal space, and was sustained. There was a left parasternal heave. No thrills were felt. A Grade III/VI harsh holosystolic murmur which increased with inspiration was present at the left sternal border and radiated to the apex. A Grade II/VI late diastolic murmur, which also increased with inspiration, was present at the LLSB. There was a prominent third heart sound. The liver extended 12 cm. below the right costal margin, and was markedly pulsatile wtih an irregular surface. Ascites was present. There was generalized muscle wasting. The peripheral pulses were of low amplitude.

*Laboratory evaluation.* Blood count, urinalysis, and serology tests for syphilis were normal. There were mild elevations of the potassium, alkaline phosphatase, LDH, and SGOT. The albumin was somewhat depressed. The ECG showed a right bundle branch block pattern, with an rsR' pattern from V1 to V6, and with left ventricle voltages appearing only in V7 to V9 (Figure 1). Right atrial hypertrophy was also noted. The chest x-ray showed generalized cardiomegaly with enlargement especially of the right atrium and right ventricle (Figure 2a).

The echocardiogram revealed a grossly dilated right ventricle with a dimension of five centimeters and paradoxical intraventricular septal motion. There was also a small pericardial effusion (Figure 3). The right atrial pressure revealed a very large V wave, with a rapid Y descent (Figure 4).

*Cardiac catheterization.* The right atrial pressure tracings showed a very prominent V wave, with a pressure of 12 mmHg (Figure 4). The mean right atrial pressure was 8 mmHg. The

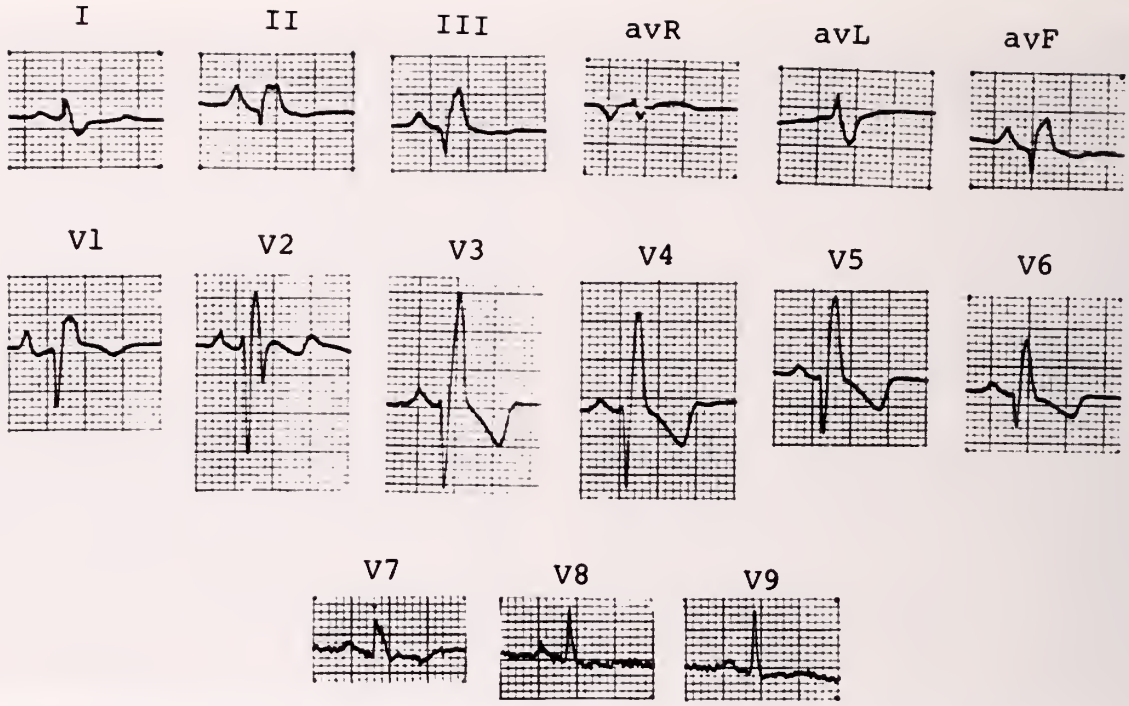


**Figure 1. 12-lead electrocardiogram reveals right bundle branch block, right atrial hypertrophy, and Q-waves in L2, L3, and AVF.**

**Figure 2a. Chest x-ray reveals marked cardiomegaly—preoperative.**

**Figure 2b. Postoperative chest x-ray with Bjork-Shiley tricuspid valve prosthesis and epicardial pacemaker.**

right ventricular pressure was 30/5-10 mmHg, while the pulmonary artery pressure was 30/0 mmHg.

Contrast material injection into the right atrium showed this chamber to be remarkably enlarged. The right ventricle was dilated. The tricuspid valve appeared to be widely open during systole. These findings were confirmed on right ventriculogram. The pulmonary circulation was normal.

Left ventriculography revealed the left ventricle to be displaced posteriorly and upward by the very large right ventricle. The volume and

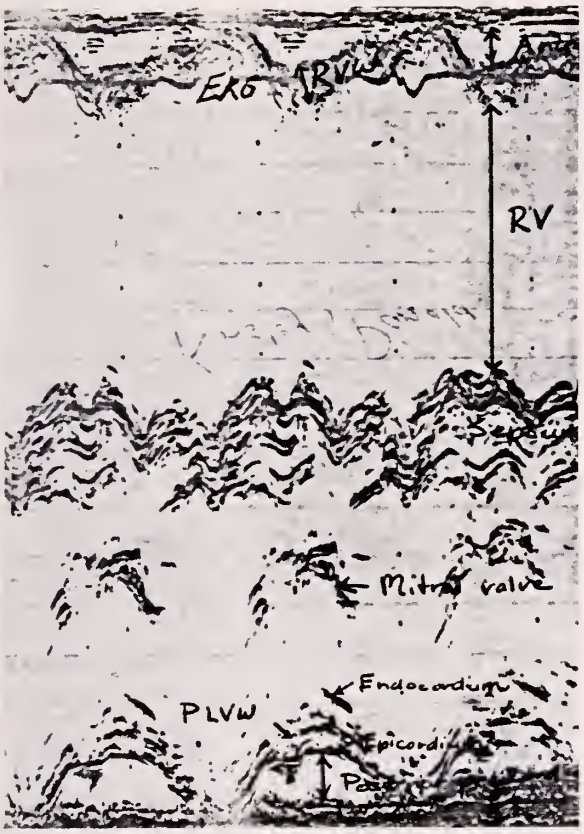


**Figure 3. M-mode echocardiogram reveals increased diameter of right ventricle, paradoxical motion of the interventricular septum and small amount of pericardial effusion. ECG (electrocardiogram), RV (right ventricle), PLVW (posterior left ventricular wall).**

ejection fraction of the left ventricle were normal. An ECG electrode introduced into the right heart showed clear damarcation between atrial and ventricular complexes at the tricuspid valve.

*Operative findings.* The right atrium and right ventricle were both grossly enlarged. The tricuspid valve was dilated and incompetent, but the papillary muscles and chordae tendineae cordis were intact. The valve was replaced with a #31 Bjork-Shiley prosthesis. A right ventricular aneursym, 3.5 by 1.5 inches extending from the apex to the pulmonary outflow tract, was noted and plicated.

Complete heart block was noted following defibrillation. This necessitated the installation of a demand permanent epicardial pacemaker.

The liver was noted to be pulsatile and nodular. A transdiaphragmatic wedge biopsy was obtained and demonstrated a well-differentiated primary adenocarcinoma, liver-cell type ("hepatoma").

*Postoperative course.* The patient gained weight and strength postoperatively and no longer displayed the stigmata of right heart failure. Postoperative chest x-ray showed marked reduction of cardiac size (Figure 2b). In spite of chemotherapy consisting of 5-Fluoro uracil by hepatic artery infusion and orally, the liver continued to enlarge, signs of hepatic insufficiency appeared, and the patient expired approximately nine months after the valve replacement and the

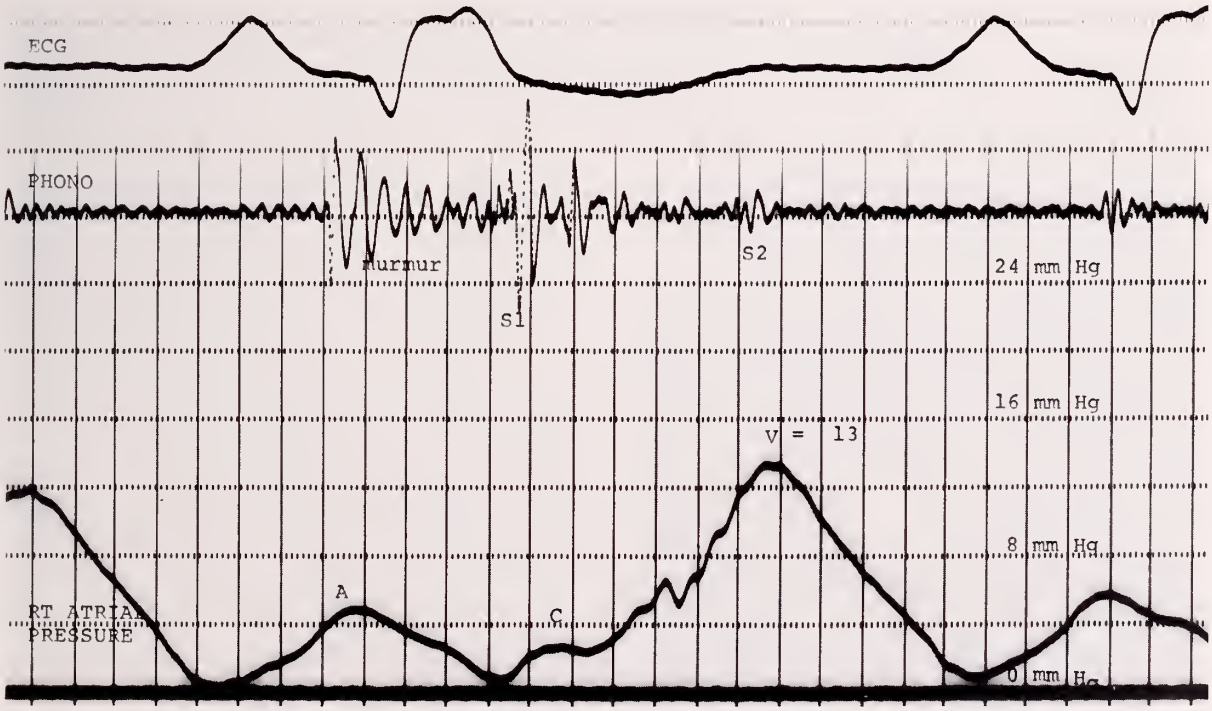


**Figure 4. Simultaneous ECG (electrocardiogram), phono (phonocardiogram), right atrial pressure with increased V-wave and pre-systolic murmur S1 (first heart sound), S2 (second heart sound).**

liver biopsy. Autopsy was restricted to examination of the liver, which was greatly enlarged (2700 grams) with a 70 to 75 per cent replacement by fairly well-differentiated primary adenocarcinoma of the liver-cell type. There was no evidence of cirrhosis, congestive or otherwise.

### Discussion

Trauma apparently damages the tricuspid valve apparatus when extreme forces are applied during diastole, simultaneously compressing the right ventricle and obstructing outflow through the pulmonary artery.[1,2,4,5]

Isolated tricuspid reflux is an uncommon lesion. Causes apart from trauma include congenital tricuspid insufficiency, Ebstein's anomaly, the carcinoid syndrome, endocardial fibroelastosis, infective endocarditis, myocardial infarction, and Marfan's Syndrome.[6] Organic tricuspid reflux may accompany left-sided rheumatic heart disease, and tricuspid prolapse may accompany mitral prolapse in the click-murmur syndrome.[7,8] Functional tricuspid regurgitation may result from pulmonic valvular lesions, especially pulmonic stenosis, pulmonary hypertension, and indeed from severe right heart failure of any cause.

After the first report of a case of tricuspid regurgitation from nonpenetrating trauma by Williams in 1829.[9] only one additional case was added prior to 1958.[10] Twenty-nine more cases have appeared in the literature subsequently, bringing the total, with our case, to 32.[2,5,11-30] Three cases of tricuspid regurgitation (TR) from penetrating trauma have been reported.[4,30,31]

Marvin *et al* reviewed the clinical and laboratory findings in 27 patients with traumatic TR in 1973.[23] Our patient was typical in most respects (Table 1). He was a male, was injured in a motor vehicle accident, and dyspnea and fatigue were prominent among his complaints. He had a pulsatile liver, a systolic murmur which accentuated with inspiration (Carvallo's Sign) and an elevated jugular pressure with prominent V waves. A presystolic diastolic murmur such as our patient demonstrated was present in 19 per cent of cases, and is probably due to high diastolic flows across the tricuspid valve. His cachexia and ascites were not usual, probably reflecting his liver disease.

Roentgenographic enlargement of the right atrium and right bundle branch block were typical. Our patient, however, had persistence of the rsR' pattern all the way to V6.

Kessler *et al* reported a case earlier this year in which the echocardiogram was instrumental in the diagnosis.[25] As in our case, the right ventricle was enlarged with paradoxical septal motion on echocardiogram, indicative of volume overload of the right ventricle.

**TABLE 1**
**Traumatic Tricuspid Regurgitation**
**Summary of the clinical and laboratory findings in 27 cases***

| | *Finding Present* | *Per Cent* |
|---|---|---|
| HISTORY | | |
| Male sex | 26/27 | 96 |
| Auto or cycle injury | 16/27 | 59 |
| Dyspnea on exertion | 18/27 | 67 |
| Fatigue | 15/27 | 56 |
| PHYSICAL EXAM | | |
| Pulsatile liver | 15/23 | 65 |
| Carvallo's murmur | 8/24 | 33 |
| Cyanosis | 6/22 | 27 |
| Tall V wave | 22/27 | 81 |
| X-RAY | | |
| Large RA | 15/18 | 83 |
| ELECTROCARDIOGRAM | | |
| RBBB | 14/24 | 58 |
| CARDIAC CATHETERIZATION | | |
| R. At. V 8 mmHg | 24/24 | 100 |
| Ventricularized RA | 18/24 | 75 |
| RVEDP 6 mmHg | 7/17 | 41 |
| PA Wedge 10 mmHg | 15/17 | 88 |

*From Marvin RF *et al*, Traumatic Tricuspid Insufficiency, *American Journal of Cardiology*, 32:723-726, 1973.

**TABLE 2**

**Tricuspid Regurgitation From Non-Penetrating Trauma**

**Summary of the pathological findings of 19 cases**

| *Lesion* | *Number* | *Per Cent* | *Average Time To Surgery or Death* |
|---|---|---|---|
| PRINCIPAL LESION | | | |
| Ruptured papillary muscle(s) | 8 | 42 | 10.2 years* |
| Ruptured or severely stretched chordae tendinea | 7 | 37 | 12.2 years |
| Dilated annulus and RV aneurysm | 2 | 11 | 15.5 years |
| Lacerated TCV: Rheumatic AS | 1 | 5 | |
| Destroyed Value | 1 | 5 | |
| ASSOCIATED FINDINGS | | | |
| Congenital VSD | 1 | 5 | |
| Accompanying patient Foramen Ovale | 5 | 26 | 8.6 years** |

*From data on seven cases.
**From data on four cases.

Typical findings of tricuspid regurgitation were present at catheterization: a tall V wave, elevated RV end diastolic pressure, and normal pulmonary artery wedge pressure. The right artrial pressure was not ventricularized, however.

The pathological findings in 19 cases at surgery or autopsy are summarized in Table 2.[9-15,17-20,26,27,28] Some authors have claimed that papillary muscle rupture has a more rapid course than chordal rupture or damage, but in this analysis the difference does not appear to be significant. Our patient's protracted course before operative intervention was not unusual.

Patent foramen ovale were present in 26 per cent of these 19 cases. In some instances, high right atrial pressures may have resulted in the opening of foramina that were previously closed. The presence of a patent foramen ovale may hasten the clinical course somewhat.

In another 11 patients, tricuspid reflux was well-documented by catheterization, but no surgical correction was undertaken because symptoms were minimal or absent.[5,15,16,20-22,24,25] Many of these will probably require surgery eventually, since overt cardiac failure may appear many years after trauma.

Right ventricular aneurysm from any cause is rare.[32] Stansel *et al* found only 15 cases when they reviewed the subject in 1963.[3] Traumatic right ventricular aneurysm has been reported only three times previously. One other case with right ventricular aneurysm and tricuspid annular dilation from nonpenetrating trauma has been reported by Salzer:[14] the aneurysm was huge and, in fact, was mistaken for right artrium on the plain chest film. Our patient's aneurysm was relatively small despite the large right ventricle and, in fact, was not diagnosed until surgery. In both instances it is likely that right ventricular enlargement led to annular dilation and tricuspid reflux. There are two prior reports of right ventricular aneurysm from penetrating wounds.[3,32] In neither instance was tricuspid regurgitation a prominent part of the clinical picture. No definite relationship of tricuspid insufficiency to hepatoma could be established in this individual.

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# Vegetarian Diet Needs More Planning

It is possible to provide an adequate diet for most people by vegetarianism, but it is much more difficult and requires more planning than for those who include meat and animal products in their diets.

The American Journal of Diseases of Children, in a recent issue included two research reports on the nutritional problems of vegetarians.

A study of 52 preschool children in the Boston area whose parents provided only vegetarian diets revealed that the children were getting at best only marginal amounts of some essential elements, including vitamin D, calcium and phosphorus. Two of the children showed direct evidence of rickets.

Another study among infants in a "Black Hebrew" community in Israel revealed severe nutritional deficiencies from a vegetarian diet. All of the infants in the community of American blacks who had migrated to Israel had profound protein-caloric malnutrition, severe rickets, bone problems, and vitamin B 12 and other deficiencies. One infant died.

# X-Ray Case Of The Month: Acute Dilatation Of The Large Bowel*

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*Ulcerative colitis is successfully managed medically in most instances; however, for the minority of patients who develop toxic megacolon, the treatment of choice is immediate surgical intervention. This case report illustrates the importance of early recognition of toxic megacolon and prompt surgical excision in a patient with ulcerative colitis who did not respond to medical therapy.*

An 18-year-old, white male was admitted to United Hospital Center, Inc., in Clarksburg, West Virginia, with recurrence of severe, cramping abdominal pains and diarrhea. Blood and mucus were observed in the stool. The diarrhea had become worse during the two weeks prior to admission, with up to 15 stools per day. The patient had a five-year history of colitis. Previous episodes had responded to conservative management consisting of a low-residue, milk-free diet, antibiotics and steroids.

Physical examination revealed a young male, 173 cm. tall, weighing 55 kg., who appeared pale and chronically ill. Vital signs were: temperature 39.4C., pulse 120, respiration 20, and blood pressure 117/88. The abdomen was tender, especially on the left side. Bowel sounds were active.

The abnormal laboratory values included an admission hemoglobin of nine grams and a prothrombin time of 14.5 seconds, with a control of 10.7 seconds.

Sigmoidoscopy was performed. Multiple ulcerations and punctate hemorrhages together with edema of the rectal mucosa were noted.

Treatment consisted of Lomotil, five mgs. q.i.d.; Azulfidine 0.5 gms., pc and hs; Robinul, one mg. ac and hs; AquaMephyton, five mg. q.d.; Keflin, two gms., q 6h IV; and Medrol Enpak, b.i.d. The patient seemed to improve.

He was afebrile for the first and second days following institution of treatment. On the fourth hospital day the temperature rose to 38.4C., and the abdomen became distended, tympanic and silent. Guarding and rebound tenderness were present.

Roentgenograms (Figure) of the abdomen revealed distended loops of small and large bowel. The transverse colon was especially dilated. There was no free air in the peritoneal cavity.

The patient's electrolytes were normalized and he received Solu Medrol, 500 mg. intravenously, and hydrocortisone, 100 mg. intramuscularly. He was then operated upon. Sub-total colectomy was performed with a mucous fistula colostomy of the proximal rectum. A permanent ileostomy was made.

Pathological analysis of the resected specimen revealed ulcerative colitis. Three walled-off perforations were noted.

**Figure. An upright film of the abdomen reveals gas-distended loops of large and small bowel, especially the transverse and descending colon. Note the absence of free air under the diaphragm.**

*This paper was written while Doctor Bierlein was Chief Resident in Family Practice, United Hospital Center, Inc., Clarksburg, West Virginia.

The postoperative course was uneventful and the patient was discharged a week after surgery.

### Discussion

There are few conditions that present with acute dilatation of the large bowel in young people. The differential diagnosis includes: toxic megacolon of ulcerative colitis, large-bowel obstruction due to tumor or inflammatory stricture or volvulus, pseudomembranous enterocolitis, granulomatous colitis (Crohn's disease), and infectious colitis.

Despite the severity of the illness and discomfort to the patient, proctosigmoidoscopy should be performed to identify the characteristic mucosal changes of ulcerative colitis, to note whether or not a pseudomembrane is present, or to rule out an obstruction of the distal colon. In the majority of patients with toxic megacolon, the rectum will be involved. Both barium enema and colonscopy are contraindicated in *acute* inflammatory bowel disease because of the possibility of perforation. If inflammation and ulceration are absent, a barium enema is indicated in order to rule out a more proximal obstructive lesion and to identify the more characteristic pattern of Crohn's disease.[5] Infectious colitis can be diagnosed within 24 to 48 hours by microscopic examination of bowel aspirate and stool culture.

### Comment

The majority of patients with ulcerative colitis can be managed medically quite satisfactorily. A small group of patients, between 1.6 per cent and 5.8 per cent, will develop toxic megacolon, the appropriate treatment of which is prompt surgical excision.[1,2,3,4,6,7,8]

In general, patients requiring surgery can be divided into two groups: those for whom elective surgery is undertaken for intractable diarrhea, anemia, chronic sepsis, or malignant changes; and those presenting with massive hemorrhage, sepsis, or toxic megacolon, who require emergency surgical therapy.[2]

### Drugs Mentioned

The following trade-name drugs, with their generic equivalents, were mentioned in this article:

Lomotil — diphenoxylate hydrochloride with atropine sulfate

Azulfidine—salicylazosulfapyridine

Robinul—glycopyrrolate

AquaMephyton—phytonadione

Keflin—cephalothin sodium

Medrol—methylprednisolone

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112th ANNUAL MEETING

of the

# *West Virginia State Medical Association*

*The Greenbrier*

AUGUST 22-25, 1979

# PLAN NOW TO ATTEND

# *The President's Page*

*Guest Author*
*Betty (Mrs. D. Sheffer) Clark, President*
*Auxiliary to the*
*West Virginia State Medical Association*

## SUPPORT, PROTECT, SUSTAIN

*I pledge my loyalty and devotion to the auxiliary to the American Medical Association. I will support its activities, protect its reputation, and ever sustain its high ideals.*

Twenty-six years ago at a meeting in Chicago that pledge was adopted for our organization. Each year since then it has been renewed time and again as auxiliaries come together for their meetings all over the country.

As the Auxiliary to the American Medical Association, and to our local and state medical associations, we support two things—the ideals of the private practice of medicine and the ideals of the voluntary effort.

I would like to emphasize the fact that we are a *volunteer* organization. As such, I wonder if you, our spouses, fully realize the impact we can have in helping dispel some of the myths about the medical profession. For example, let's look at cost effectiveness. Again this year we will re-emphasize the importance of healthy living as a way to control spiraling health cost. For more than 50 years the purpose of the AMA Auxiliary has been to promote good health care for the people of this nation. We have sponsored and carried out every kind of health care project and program you can mention.

One criticism currently directed to the medical profession has been fueled by the rising health costs mentioned. Rationally, we know that the country's inflationary economy has affected the cost of health care just as it has affected the cost of a bag of groceries. Yet the blame is being laid squarely on the medical profession.

To combat this, we have established a health projects committee which is undertaking a health promotion program. We are encouraging consumers to learn healthful practices by educating them to adopt more healthful lifestyles; we are exporing methods of utilizing public communications more effectively in health education efforts, and we are encouraging consumers in appropriate risk groups to utilize services which would permit the early detection and treatment, or the prevention, of illness.

For a long time there was a lingering notion that the physician's spouse was someone whose only aim in life was to belong to the country club, drive her new Cadillac or show off her new diamond ring. The public is fast learning how false this image is. They have seen us in action through our AMA-ERF, legislation and health promotion programs. We, as volunteers, work on programs for the aging, services to the handicapped, screenings, immunization, safety, drug and alcohol abuse, the battered wife, nutrition, scholarships—the list is endless.

All of these things help to promote a good image of physicians and their families. They help protect the reputation of the AMA family.

Lastly, we pledge to sustain the high ideals of our organization. We do this by volunteering our time because we believe in what we are doing. When we work on a community project with another organization it establishes the physician's wife as a person who cares. If we, as auxilians, have one distinct challenge it is to sustain the ideals of voluntarism through unified support of the auxiliary. We are confident that you, the physician, will continue to uphold our organization and these principles to which we are pledged.

Betty Clark

The West Virginia Medical Journal

# Editorials

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**FINANCIAL CRISIS**

Among the many current problems faced by medical schools is their growing inability to assist students with financial need.

The two major federal-aid programs for medical students, the Health Professions Loan and Scholarship Programs, are or will be phased out, with the Federal Government having decided that there is no shortage of physicians, only a maldistribution. Currently, only the Health Professions Loan Program is available to students with "exceptional financial need," which is defined as "zero resources."

A number of continuing excellent scholarships have been made available to students in the West Virginia University School of Medicine. These include the West Virginia State Medical Association Scholarships, the Board of Regents Scholarships, the Loyalty Permanent Endowment Scholarship Fund, the Attorney General of West Virginia Public Health Trust and the Southern Medical Association Medical Student Scholarship. In addition, a number of private foundations and individuals provide small but valuable scholarship assistance to medical schools.

The Health Education Assistance Loan (HEAL) Program and the Robert Wood Johnson Loan Program are not really good alternatives because of interest rates of 12 per cent. In an example which accompanies the HEAL application, a student who borrows $8,000 per year for four years would ultimately repay $148,709! The AMA-ERF Loan Program has been substantially reduced. It can now only be used as a loan of last resort, and the interest rate has been increased to 14.5 per cent.

The Federally Insured Student Loan Program requires participation by the student's local bank. While West Virginia banks have generally been cooperative, about one-third of our students who seek a guaranteed loan are turned down.

Emphasis at the federal level has been to encourage student participation in the National Health Service Corps Program which pays tuition and fees, educational expenses and a monthly stipend in return for a year-for-year of service in a designated health manpower shortage area. A military alternative is available to the student through the Armed Forces Scholarship program. Neither of these programs is based on financial need. Each requires a commitment which many medical students are not yet prepared to make, but might do so because it is their only choice for financial solvency.

It is certainly not appropriate for a School of Medicine to consider the students' financial circumstances in the admission process, but many feel the growing unavailability of financial aid may result in a self-selection for medical school by students who are financially independent, excluding many talented young men and women who come from more humble backgrounds.

Professional schools under the purview of the West Virginia Board of Regents contribute to the financial welfare of students through the maintenance of quite low tuition and fee charges. In some institutions, a single year's tuition may exceed that of West Virginia professional schools by a multiple of 30 or 40.

We have been able in the past to meet about 60 per cent of our students' true need through the various loans and scholarships available. This will decline sharply in the years just ahead.

If we can maintain the support that we have and encourage the pattern established by physicians at the Medical Center, who for several years have designated a significant portion of their earnings to the establishment of a low-interest loan fund, we may be able to forestall the crisis in financial aid for professional students.

Individual contributions to this loan fund not only aid a student immediately, but will continue to assist students in future years as the principal and interest are repaid. Recently, the Alumni Association of the School of Medicine made a fine contribution to this loan fund.

It is quite clear that the future generations of medical students with financial need will be required to commit to a federal program very early in medical school or undertake an almost prohibitive indebtedness unless we can develop our own loan capability in the years just ahead. —*Guest Editorial by David Z. Morgan, M. D., Associate Dean, West Virginia University School of Medicine, Morgantown.*

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**CONTROL**

Government interference in the health care delivery system goes on at a faster and faster pace. Just as the average middle-income taxpayer has begun to complain, so the average medical practitioner, who for years has been able to let "those other fellows" take care of the political end of medicine, is feeling the pressure of the big brother tactics that permeate all levels of regulatory government. Here are a few examples that come to mind for the average doctor with a private practice and hospital affiliations:

*Professional Standards Review Organization (PSRO).* The regulatory activities of this federally-funded and "guide-lined" Califano-Kennedy dream-child are finally getting down to the common man among us, threatening him with more and more regulation and dictation of methods of diagnosis and treatment of health and disease. If you are one of those who has been content to sit undisturbed on the sidelines doing your individual thing, you may not even be reading this; if you *are* reading this, you will agree that your freedom to diagnose and prescribe have come under a multi-regulatory system of supervision which "guide-lines" you into such situations as vanished confidentiality of medical records of recipients of any government-funded medical care; and utilization review by a committee of your peers who are trying desperately to do their part in "holding the line on medical costs."

The committee is trying to achieve the cost-containment goal by limiting (according to the federally-mandated guidelines) the length of stay of your patients in the hospital on the one hand, and requirements of what you are convinced are the minimum and acceptable criteria for adequate care of your patient, on the other.

*Maximum Allowable Cost (MAC).* This is a pet program of Califano to limit the amount which may be charged for drugs by the pharmacist and to require him to substitute generic drugs from the HEW-approved list, supposedly a measure to control the rising cost of drugs, but in reality a ploy to secure control of drug administration under the coming national health insurance scheme.

*Federal Trade Commission (FTC).* You know already about the theory of the HEW bureaucracy that doctors own a medical monopoly that keeps their fees sky-high. So the FTC obligingly pursues the medical profession, trying to dog it into cut-throat competition by requiring that physicians advertise their fees: this in line with the FTC ruling that the medical profession may in no manner enunciate ethical guidelines of its own without prior approval of the FTC! . . . and so on and on. . . .

The ostensible excuse for the incursions of government into the private sector is to reduce the cost of medical care. The real reason is to increase bureaucratic control in all branches of medical care in order, finally, to integrate them into what Senator Kennedy straight-facedly calls National Health Insurance, a respectable synonym for socialized medicine. Socialized medicine can't be administered effectively unless the regulators have life-and-death control over the health care industry, an end which seems to be more and more in prospect as the federal and state governments nibble away at the private practice of medicine.

The planners can't give up the notion that it is possible to provide "free" services without stimulating an uncontrollably-increased demand for those services. They admit that abuse of "free" services would be likely, but maintain that they will, by edict and regulation, control the delivery of health care to keep down the cost and prevent over-utilization.

Ask your hospital administrator how much of his costs derive from compliance with government regulation. Take a look at Medicaid and Medicare and see how the uncontrollable demand has caused great dissatisfaction among the recipients because of the enormous financial demand upon the providing agencies which have to pass on more and more of the costs to the recipients of this highly promoted program of "free medical care." But undaunted by rising costs resulting from government regulation, the promoters of socialized medicine push on bravely in pursuit of the ephemeral, utopian society in which no one wants for anything and everyone lives out his years in plenty, supplied from the inexhaustible storehouses of government bureaus.

# Our Readers Speak

## Advises Redesigned Experiment

Re: Perry, L., and Porter, C. V.: Pushing Technique and the Duration of the Second Stage of Labor. *West Virginia Medical Journal* 75(2): 32-34, February, 1979.

Although I enthusiastically endorse prenatal patient education and agree with the conclusion reached in the above article, the data in no way supports the conclusions.

In order to perform this type of study, randomization of patients in each group must occur to prevent bias. In addition, in order to prevent observer bias, the observer or scorer must be unaware of which patient belongs to which group, i.e., the study must be double-blinded.

In Table I, patients 1 and 2 probably should be eliminated from the study. I find it incomprehensible that the actual duration of the second stage of labor in primigravida with a nine-pound baby and an eight-pound, 14-ounce baby is two and seven minutes [respectively] and would question, on the bases of these durations, the duration of all second stages reported in the study. It is important that full dilatation be accurately timed for this to be a meaningful study.

Further analysis, even without elimination of patients 1 and 2 by the Fisher t-Test for small-group analysis, reveals that there is no difference in the length of second stage between Groups A and B. The P value for this is greater than .10. In addition, several other delinquencies are noted, i.e., why were Groups B and D not scored on pushing techniques?

Nurse Perry and Doctor Porter should be complimented on their attempt to quantitate differences between patients with prenatal education and those without.

Few, if any, statistically-valid reports are extant in the literature today and, unfortunately, this article is likewise questionable. I would personally encourage Doctor Porter and Ms. Perry to redesign their experiment using the randomized, double-blind technique and standard statistical analysis.

Robert P. Pulliam, M. D.
120 Professional Park
Beckley 25801

## Misuse Of Drugs

Re: Preventive Treatment of Asthma, Edwin J. Morgan, M. D., [*The West Virginia Medical Journal*, February, 1979]

This review article was brought to my attention as a flagrant example of the misuse of drugs in asthma.

Having been Chairman of the Drug Committee for both the national allergy societies, I can tell you there are many patients who are not effectively treated by any drug. Hyposensitization is helpful in some, avoidance helpful in some, and treatment of infections in many others.

Asthma is a complex entity. The symptom complex which, while drug treatable, is best prevented.

William C. Grater, M. D.
8226 Douglas Avenue
Dallas, Texas 75225

## Astounded

I was rather astounded to see a highly unlikely and speculative theory appear in a recent article in the *West Virginia Medical Journal*, Volume 75, Number 2, February, 1979, entitled "Legionnaire's Disease—An Allergen Theory."

I would be interested in knowing what points of merit the Editorial Board looked at in their decision to publish this article.

The field of allergy already seems to have sufficient unproven and unjustifiable theories to make me wonder if we really need more. I am especially concerned, since other unproven methods denounced at meetings of the American Academy of Allergy have found their way, in some instances, into clinical practice.

I think it would be quite informative to forward this article to the Center for Disease Control, giving equal time in your *Journal* to their critical evaluation of this theory.

John H. Wolf, Jr., M. D.
4th Floor, Citizens Building
Morgantown 26505

## Invites Critical Evaluation

(*Note*: Below is the reply to Doctor Wolf's letter above by Dr. Stephen D. Ward of Wheeling, Editor.)

The Editorial Board is not of the opinion that the Center for Disease Control has covered itself with any glory in its handling of the Legionnaire's Disease mystery. Your evaluation of our article is certainly critical. We would be more interested, however, in your critical evaluation of our article and the theory it projects. The Center for Disease Control has its own publishing resources.

The Editor

## Disagrees With Approach

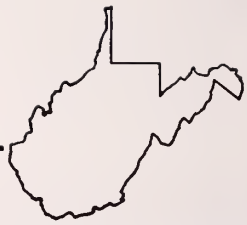
My attention has been drawn to the Review Article in the February issue of the *Journal*, "The Preventive Treatment of Asthma." Since asthma is the major concern of every allergist, it is beyond my comprehension how the author could ignore three-quarters of a century of progress in our understanding of the basic nature of this disease and so lightly dismiss the central role of allergic management. His approach, as it is based on hardly anything more than palliation, puts us back in the nineteenth century.

Perhaps it may be argued that a physician from another state has no rights in this matter. But your *Journal*, like every state journal, is read world-wide, and it will be a permanent source in medical libraries everywhere. How depressing it would be for a young victim of asthma to read that extending before him is a long life with drugs, drugs which the author admits have limited value and many side effects.

May I respectfully suggest that you have one of your fine West Virginia allergists write a rebuttal?

Frederic Speer, M. D.
Speer Allergy Clinic
5811 Outlook Drive
Shawnee Mission, Kansas 66202

# GENERAL NEWS



## Joint Replacement, Pain Convention Subjects

Papers on joint replacement and pain will be presented during the 112th Annual Meeting of the State Medical Association August 22-25 at the Greenbrier in White Sulphur Springs.

Speakers for the second general session at 9:30 A. M. on Friday, August 24, will include Dr. Eric L. Radin, M. D., Associate Professor of

Eric L. Radin, M. D.

Robert Bettinger, M. D.

Orthopedic Surgery at Harvard Medical School, and Robert Bettinger, M. D., Assistant Professor of Anesthesiology, West Virginia University Medical Center, Morgantown.

Doctor Radin's topic will be "Update on Total Joint Replacement," while Doctor Bettinger will discuss "The Pain Clinic: Unique Approach to an Old Problem."

Doctor Radin also will address the State Medical Association's Section on Orthopedic Surgery at its meeting Friday afternoon at the Greenbrier. His subject will be "Treatment of Osteonecrosis of the Femoral Head in the Young Adult."

Doctor Radin also is in the private practice of orthopedic surgery at the Mt. Auburn Hospital in Cambridge, Massachusetts, and is involved in teaching and research at Harvard Medical School, Harvard University and Massachusetts Institute of Technology.

He was graduated from Amherst College and received his M. D. degree from Harvard Medical School, completing his orthopedic residency in the Harvard Combined Orthopedic Residency Program (Massachusetts General Hospital-Children's Hospital Medical Center).

Doctor Bettinger is a native of Upper Darby, Pennsylvania.

He was graduated from the University of Virginia and received his M. D. degree in 1973 from the Medical College of Virginia. He completed postgraduate training at the University of Virginia and at the Bristol Royal Infirmary in Bristol, England.

Annual Meeting activities will get underway with a 2 P. M. meeting of the Association's Executive Committee on Tuesday, August 21; the usual pre-convention meeting of the Council at 9:30 A. M. on Wednesday, and the opening session of the House of Delegates at 2:30 P. M. on Wednesday.

Dr. Hoyt D. Gardner of Louisville, Kentucky, who will be installed as President of the American Medical Association during the AMA House's Annual Meeting in Chicago in July, has been invited to address the first House session.

### Drug Reactions

As announced previously, a "Symposium on Drug Reactions and Interactions" is scheduled as the first general session to be held following 9 A. M. opening exercises on Thursday. The speakers and their topics will be:

"Perspectives of Clinical Problems with Drugs"—Leighton E. Cluff, M. D., Vice President, The Robert Wood Johnson Foundation, Princeton, New Jersey; "Drug Levels: Fact and Fancy"—W. Leigh Thompson, M. D., Ph. D., Co-Director of Clinical Pharmacology and Critical Care Medicine, University Hospitals of Cleveland, and "Psychotropic Drug Interactions"—Frank J. Ayd, Jr., M. D., Director of Professional Education and Research, Taylor Manor Hospital, Baltimore, and Professor of Psychiatry, WVU Medical Center, Charleston Division.

A "Symposium on Liver Disease," also as announced previously, will be held as the third general session Saturday morning. The speakers will include Harry H. LeVeen, M. D., Chief, Surgical Service, Veterans Administration Hospital, Brooklyn, New York; and Professor of

Surgery, State University of New York, whose subject will be "Surgical Treatment of Ascites," and Saul Krugman, M. D., Professor of Pediatrics, New York University Medical Center, New York City, "Viral Hepatitis: New Developments."

**Other Convention Information**

The general Convention format once again will provide opportunities for breakfast, luncheon and other meetings, of a scientific and/or business nature, of the various sections and specialty organizations affiliated with the Medical Association. It is anticipated that most of these again will be scheduled on Friday, August 24.

Plans also call for the usual President's Reception on Wednesday evening, August 22, and the Saturday evening reception for new officers. The latter will follow the second and final House of Delegates session at 2:30 P. M. on Saturday which will bring the inauguration of Dr. Stephen D. Ward of Wheeling as President to succeed Dr. Robert D. Hess of Clarksburg.

More specific information relative to other convention speakers will be provided in upcoming issues of *The Journal.*

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. D. Sheffer Clark of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's Convention.

## Educational Material Offered By Cancer Society

The following educational materials are available to physicians without charge by writing the American Cancer Society, West Virginia Division, Inc.:

"Ovarian Cancer—an Overview," a 21 and one-half minute, 16 mm. color film which emphasizes the necessity for accurate classification of ovarian tumors and their malignancy potential in order to offer appropriate treatment and prognosis; presents signs and symptoms of disease, and procedures for definitive diagnosis.

Available with the film is a related ACS publication, "Ovarian Cancer," which discusses diagnosis, staging, treatment, and management in children. A monograph on cancer statistics for 1978 also is included.

The address for requesting the above is: American Cancer Society, West Virginia Division, Inc., 240 Capitol Street, Suite 100, Charleston 25301.

Please allow two weeks for film and material request.

# *Review A Book*

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal,* Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Understanding Arthritis and Rheumatism* (paperback), by Malcolm I. V. Jayson, M. D., and Allan St. J. Dixon, M. D. 234 pages. Price $1.75. Dell Publishing Company, Inc., New York, New York 10017. 1974.

*The Health Robbers* (second printing), Edited by Stephen Barrett, M. D., and Gilda Knight (with foreword by Ann Landers). 340 pages. George F. Stickley Company, 210 W. Washington Square, Philadelphia, Pennsylvania 19106. 1978.

*Current Medical Diagnosis and Treatment, 1979,* by Marcus A. Krupp, M. D., and Milton J. Chatton, M. D. 1,130 pages. Price $18. Lange Medical Publications, Los Altos, California 94022. 1979.

*Physician's Handbook, 19th Edition,* by Marcus A. Krupp, M. D.; Norman J. Sweet, M. D.; Ernest Jawetz, M. D., Ph. D.; Edward G. Biglieri, M. D.; Robert L. Roe, M. D., and Carlos A. Camargo, M. D. 758 pages. Price $9. Lange Medical Publications, Los Altos, California 94022. 1979.

## Doctor Blaydes Honored By EENT Academy

Dr. J. Elliott Blaydes of Bluefield has been informed by the American Academy of Ophthalmology and Otolaryngology that he qualifies for the Academy's Award of Merit for services to the Academy and its education programs.

Additionally, Doctor Blaydes has been appointed as the American Academy of Ophthalmology's representative to the Joint Commission for Allied Health in Ophthalmology.

Doctor Blaydes has been Secretary-Treasurer of the West Virginia Academy of Ophthalmology and Otolaryngology for a number of years, and has been active in the planning for the Academy's annual education meeting (National Spring Meeting) at the Greenbrier in White Sulphur Springs.

# Medico-Legal

*Editor's Note:*

*The following material was prepared by Richard D. Lindsay, M. D., J. D., a 1974 graduate of West Virginia University School of Medicine and a 1978 graduate of the West Virginia University School of Law. He is a member of the American College of Emergency Physicians, West Virginia State Medical Association, and the West Virginia State Bar Association. He currently is practicing law and emergency medicine in Charleston.*

## The Defendant-Physician

No one looks forward to being a witness at any trial, least of all at a trial at which one also is a defendant. The defendant-physician in a malpractice action understandably can therefore approach his predicament with some lack of enthusiasm. Not only does this physician generally feel that the action against him has little, if any, merit, but he also must suffer to submit himself to public questioning by an educated individual who is the advocate of the plaintiff, and therefore will attempt to posture the defendant-doctor in as bad a public light as possible. Finally, this highly-trained physician, chosen to be one to pursue the high calling of the medical arts because of natural intelligence and ability to learn and comprehend difficult and complicated situations, is laid at the mercy of those particular processes and procedures which actually give structure and stability to our judicial system but which appear, to a harried defendant, as only vehicles created by attorneys to twist and misrepresent the physician's words and actions.

A physician first should recognize and accept that he is out of his element while in the courtroom. Even expert, professional witnesses rarely understand the intricacies of the law and how it can be used for or against them. The doctor cannot change the law, and he does not have the responsibility to interpret and understand it, and to shape and direct the course of the case. This is what his lawyer is for, and a doctor should make the first step toward a successful defense by accepting the situation and his limited role in it.

Beyond the actual trial tactics and strategy, however, there is much that the defendant-physician can do to help or harm his case, regardless of the skill of his attorney. In this material we shall present an explanation of the basic mental and physical attitude, and demeanor, which the defendant-physician should assume while he is in the courtroom.

### Appearance

The defendant-physician should dress for the trial as his lawyer does. A certain appearance is expected by the public of participants in the trial, whether such expectation has stemmed from books, movies, television or other perspectives. Divergence from accepted dress can only draw attention to oneself and have the defendant-doctor appear "different" to the jury. Most attorneys will dress conservatively in business suits, pressed and well-fitting, and the physician should do likewise. Other factors in appearance should not be neglected. Shaven, well-groomed individuals usually make a favorable impression upon the jury, as well as upon the opposing attorney. It should be remembered that the psychology encompassing participants in a trial is extremely important; and an attorney who must face a physician will feel much more confident in his approach to questioning if he feels that the jury already has had some basis to form a less than favorable opinion of that physician. While the defendant-physician will be instructed to look and act naturally in the courtroom, physicians who dress flamboyantly and eccentrically should assume the dress that most people would expect of their doctor rather than what the physician normally might wear.

### Demeanor

In this category, also, it is most important for a doctor to act as the public would expect of one in his profession. A defendant should refrain from testifying from his chair beside his counsel while someone else actually is on the witness stand. Loud whispers of "that's not true," or anguished moans, will not help the doctor's case and might, indeed, hurt his position in the eyes of the jury for several reasons.

First, the judge will be forced, if such interruptions continue, to tell the witness to keep quiet. The plaintiff's attorney will have the right to ask for, and demand, this of the judge. The judge himself in most communities is well liked by jurors—he treats them well, is courteous, and is in a position of authority. If it appears to a jury that a judge is moved to anger by the actions of the defendant-doctor, that physician

will have lost an important battle in his psychological approach to the jury.

Second, most people who serve on a jury have an identifiable view of what is considered proper and fair in a court of law. This position usually includes the right of everyone connected with the trial to have an opportunity to tell his story in uninterrupted fashion. Continued outbursts from a defendant will appear as if the doctor is tempting forces beyond them and outside proper procedures.

Not to be forgotten in this category of demeanor is the manner in which the physician approaches his position at this trial. He is the defendant. He should appear neither cocky nor depressed. A type of self-restrained concern should be reflected by the doctor. Familiarity should only be revealed when talking to his own attorneys. At no time should the defendant attempt to become familiar with anyone on the jury, or with the plaintiff and his attorneys, through either speech or mannerisms.

### On The Stand

A defendant-physician should be nervous as he takes the witness stand. He can expect to be handled well by his own attorneys, but the crisis will come when the questioning begins by the plaintiff's lawyers. The first and most obvious instruction to the physician is to think before he answers any question. There will be no reasonable time limit on how long a doctor can take before he answers, but he should be certain that he understands the question before he attempts an answer. Physicians should realize that usually no question will be asked of them without a reason for it; and that a quick, poorly thought-out answer can lead to eventual embarrassment.

A defendant should never assume that because he is a doctor, and therefore has a familiarity with medical terms, the lawyer opposing him will be any less deft with the medical situation for which a doctor is being sued. A good lawyer will spend a significant amount of time learning about the particular problem at hand and then, by virtue of the fact that he will be asking the questions, will make the physician discuss and answer only questions the lawyer wishes to present to the jury at that time.

It is not uncommon during this procedure for the physician-defendant to become agitated and upset with his position. Many physicians make the mistake of attempting to argue the case with the opposing lawyer. This will only lead to embarrassment of the doctor either by the judge instructing him to answer the question, and not to editorialize, or by the attorney impeaching the doctor's statements by use of textbooks, journal articles, etc. The physician-defendant should accept the fact that he will have a hard time during this questioning, but his own attorney will properly do his job and rehabilitate the doctor's testimony when his opportunity arises.

Finally, in his answers to questions posed to him, the defendant-doctor should be accurate as to medical certainty. The plaintiff's attorney will know before he asks any questions what the answer should be to those questions. Any discrepancy between what the lawyer hears and what he expects will be probed thoroughly. Eventually, if possible, the physician will be characterized as having played loosely with the truth. For example, if a question is given as to certain symptoms being consistent with a certain condition, the doctor should not state dogmatically that yes, these are present "100 per cent" or "all the time." Such answers lend themselves very well to impeachment by opposing counsel, for nothing is 100 per cent, or present all of the time, in medicine. Indeed, some of the jurors will feel that they are being deliberately misled by the doctor, and the physician who attempts to help his own case by such statements well might cause the remainder of his testimony, no matter how accurate, to be discredited.

### Your Attorney

A physician-defendant must accept the fact that it helps him at least to know his lawyer. Just as a surgeon would not expect an attorney to be able to perform a cholecystectomy, no matter how familiar the physician is with the terms or how often he has seen it done on television or in the movies, the defendant's attorney does not expect the doctor to know much about the practical aspects of a trial and the law. What the attorney does expect is that his client will recognize the physician's deficiencies in the field of law, and accept the advice of his lawyer.

Physicians discuss many times among themselves patients who do not follow that advice they sought from a doctor, and paid for. Too many physicians do not realize that a major complaint of attorneys centers about the client who seeks them out, finally pays them, and then does not follow the advice and counsel offered. Often, that client is a doctor.

## Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1979, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

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| April 6, 7 | Morgantown | Cancer Teaching Days |
| April 7 | Wheeling | Medicine Day—Infectious Diseases |
| April 20-21 | Morgantown | Patient Communication and Compliance |
| April 21 | Wheeling | Surgery Seminar |
| May 10-11 | Morgantown | Health Officers' Conference |
| May 18-19 | Morgantown | Internal Medicine Day |
| June 2 | Charleston | 6th Annual Whitewater Surgery Conference |
| June 8 | Charleston | 6th Annual Alumni Education Day |
| June 9 | Morgantown | Anesthesia Update |

**Visiting Professors**

(Morgantown)

| | |
|---|---|
| April 12-13 | Richard W. Stander, M. D., Director of Education, American College of Obstetrics and Gynecology, "Continuing Education—The Physician's Renaissance or Rip-Off?" and "White Man's Medicine in Red Man's Country" |
| April 26-27 | Richard J. Kitz, M. D., Anesthetist-in-Chief, Massachusetts General Hospital, Harvard Medical School, "The Pharmacology of Anti-Cholinesterase Action" |
| May 3-4 | Gloria E. Sarto, M. D., Professor and Vice-Chairperson, Department of Obstetrics and Gynecology, Northwestern University School of Medicine, "Pre-natal Detection of Inherited Disorders" and "Primary Amenorrhea; Gonadal Dysgenesis" |
| June 7-8 | Mortimer Rosen, M. D., Professor, Department of Obstetrics and Gynecology, Case Western Reserve University, "Antenatal Fetal Assessment: Electronic Monitoring of the Fetus and the Fetal Brain" and "Medicine and Anesthesia in Pregnancy: A Clinician's Guide" |
| June 8 | David J. Stewart, M. B., Anaesthetist-in-Chief, The Hospital for Sick Children, Toronto, "Anaesthesia for Cardio-Vascular Surgery in Children" |

## Wheeling Conferences To Cover Infectious Disease, Trauma

The Wheeling Area Medical Education Committe will sponsor an Infectious Disease Seminar on April 7 and a Symposium On Trauma on April 21.

Both conferences will be held in the amphitheater of the Education/Administration Building of Ohio Valley Medical Center at 2000 Eoff Street in Wheeling.

The Infectious Disease Seminar will begin at 8:30 A. M., and will include the following speakers and topics:

"Rationale in Antimicrobial Selection" — R. D'Allesandri, M. D., Assistant Professor, Internal Medicine, West Virginia University School of Medicine, Morgantown; "Pneumonia—Diagnosis, Treatment and Prevention" — Frederick L. Ruben, M. D., Associate Professor, Department of Medicine, University of Pittsburgh School of Medicine; "Current Concepts in Urinary Tract Infection"—V. Chokkavelu, M. D., Chief, Infectious Disease Department, Ohio Valley Medical Center;

"Biphasic Intra-abdominal Infections"—John Bartlett, M. D., Associate Professor of Medicine, Tufts University School of Medicine, Boston; "Gram Negative Infections in Hospitals" — Ronica M. Kluge, M. D., Associate Professor of Medicine and Chairman, Infectious Disease Department, WVU, Morgantown, and "Pseudo Membranous Enterocolitis"—Doctor Bartlett.

This continuing medical education activity meets the criteria for eight hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association.

The registration fee will be $35 for physicians, $15 for graduate nurses, with no fee for student nurses, medical students and residents and interns. The registration fee includes a luncheon served at the Nurses Residence-Ohio Valley Medical Center.

The program will conclude at 5 P. M. following a panel discussion.

**Symposium on Trauma**

Speaking for the Symposium on Trauma, beginning at 8 A. M., will be R. Adams Cowley, M. D., Director, Maryland Institute for Emergency Medical Services, University of Maryland, on "An Echelon System for Trauma Care;" Marvin M. Kirsh, M. D., Professor of Surgery, Section of Thoracic Surgery, University of Michigan, "Pulmonary Contusion and Ruptured Bronchus;" Kil Un Lee, M. D., Chief of Hematology and Blood Bank, Ohio Valley Medical Center, "Intra-Operative Auto-Transfusion;" Paul R. Sohmer, M. D., Assistant Director of Blood Bank, Maryland Institute for Emergency Medical Service, University of Maryland, "The Value of Blood Component Therapy in Severe Hemorrhage;" William R. Olsen, M. D., Professor of Surgery, University of Michigan, "The Early Management of Abdominal Injuries;"

Doctor Cowley, "The Management of Severe Multiple Injuries;" Doctor Kirsh, "Management of Aortic Injuries;" J. Speed Rogers, M. D., Neurosurgeon, Henry Ford Hospital, Detroit, "A Neurosurgeon's View on Trauma," and Doctor Sohmer, "Coagulopathies Including DIC in Trauma."

The conference will conclude following a panel discussion beginning at 3:45 P. M.

The registration fee will be $35 for physicians, $15 for graduate nurses, with no fee for student nurses, medical students and residents and interns. The registration fee includes a luncheon served at the Nurses Residence-Ohio Valley Medical Center.

The program is acceptable for eight hours in Category 1 of the AMA Physician's Recognition Award.

For additional information concerning either conference, contact R. Wade Ortel, M. D., Director, Wheeling Area Continuing Medical Education, 2000 Eoff Street, Ohio Valley Medical Center, Wheeling 26003. Telephone (304) 234-8363.

## 'Cancer Teaching Days' April 6-7 At WVU In Morgantown

"Etiology and Treatment of Lymphoma and Leukemia" will be the subject of the Fifteenth Annual Cancer Teaching Days to be held April 6-7 in Morgantown at the West Virginia University Medical Center Auditorium.

The sponsors are The Charleston Foundation, the Cancer Committee of the West Virginia State Medical Association, the West Virginia Division, American Cancer Society, and WVU Medical Center.

Dr. Peter C. Raich, WVU Professor of Medicine and Chairman, Division of Hematology-Oncology, will be Chairman for the Friday morning, April 6, session. He also will provide an introduction following 8:15 registration and a welcome by John E. Jones, M. D., Dean of the WVU School of Medicine.

The speakers and their topics (Friday morning) will be "Epstein-Barr Virus and Malignancy"—Robert W. Veltri, Ph. D., WVU Professor of Microbiology and Otolaryngology, and Director of Otolaryngolic Research, and "Advances in Viral Etiology of Leukemia and Lymphoma"—Robert C. Gallo, M. D., Chief, Laboratory of Tumor Cell Biology, National Cancer Institute, Bethesda, Maryland.

A panel discussion will follow the above presentations.

The Friday afternoon speakers and topics will include "Initial Evaluation and Staging of Malignant Lymphoma" — Brian K. Walker, M. D., WVU Assistant Professor, Department of Medicine, Division of Hematology-Oncology; "Combination Therapy of the Lymphomas"—John H. Glick, M. D., Section of Hematology-Oncology, Hospital of the University of Pennsylvania, Philadelphia, and "New Approaches to the Management of Chronic Granulocytic Leukemia"—Alex M. Hendrick, M. D., WVU Instructor, Department of Medicine, Division of Hematology-Oncology.

A panel discussion will conclude Friday's program.

Barbara Jones, M. D., WVU Professor and Assistant Chairman, Department of Pediatrics,

will serve as Chairman for the Friday afternoon session.

Alvin L. Watne, M. D., WVU Professor and Chairman, Department of Surgery, and Charleston Foundation Professor of Cancer Research, will be Chairman for the Saturday morning session.

Speaking will be Doctor Raich, on "Classification of Leukemia and Pre-Leukemic Conditions;" Dr. Barbara Jones, "Progress in Childhood Leukemia," and Edward S. Henderson, M. D., Chief, Medicine A, Roswell Park Memorial Institute, New York City, "Treatment of Leukemia in Adults."

The conference will conclude at 12:15 P. M. following a panel discussion.

This continuing medical education activity meets the criteria for eight credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association; also meets the criteria for 0.8 continuing education units (CEUs), and is acceptable for eight hours by the American Academy of Family Physicians.

## AMA Chronic Mental Patient Workshop In May

A workshop on "Physicians and Chronic Mental Patients: Potentials for Community-Based Care" will be sponsored by the American Medical Association May 10-11 in Chicago at the Palmer House.

Participants will focus on identifying priorities in medical education as they relate to the physician's role in providing comprehensive care to patients with long-term or severe mental disabilities.

Through intensive discussion group sessions, professionals attending this meeting will examine the following issues: special unmet needs of the chronic patient; patterns and deficiencies in current service deliveries; physician relationships with professionals in mental health and human service fields; legal and legislative issues; economic considerations, and major obstacles to treatment and continuity of care.

In addition, the two-day workshop will feature plenary sessions devoted to a discussion of successful programs in case management; national perspectives; federal initiatives in promoting community-based services; contributions of medical specialties; opportunities and dilemmas for the primary care physician, and effective utilization of resources. Participants will also have an opportunity to meet in state and regional caucuses to discuss strategies for implementing educational programs.

Attending the workshop will be physicians from a variety of specialties including pediatrics, psychiatry, family practice, internal medicine and emergency medicine, as well as administrative staff involved in directing medical education programs in medical schools and hospitals.

For additional information, contact: Ms. Suellen Muldoon, Associate Director, Department of Mental Health, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

## State Ob-Gyn Group Receives National Award

The West Virginia Section of District IV has been selected by the American College of Obstetricians & Gynecologists (ACOG) as the recipient of the 1978 Wyeth Section Award for its work toward the establishment of a permanent perinatal health and mortality registry.

The award, which is supported by a grant from Wyeth Laboratories and includes a $2,500 cash prize and a certificate for the winning section, is presented each year to the College for the section reporting the most outstanding single section activity during the preceding year. The West Virginia Section is chaired by Robert P. Pulliam, M. D., of Beckley.

With the objective of establishing a permanent registry, the section reviewed the perinatal mortality for the entire state for 1975 through 1978. Through cooperation of the West Virginia State Health Department's Division of Vital Statistics, a hospital-by-hospital record of births, fetal deaths, and neonatal deaths for those years was obtained and reviewed for patterns of perinatal mortality.

The data was then combined with a current case-by-case chart review of all perinatal mortality for 1978. Death certificates were supplied monthly by the Division of Vital Statistics, and members of ACOG and the West Virginia Obstetrical & Gynecological Society were requested to send photostatic copies of the mothers' and infants' hospital records. According to Doctor Pulliam, follow-up letters and phone calls were rarely necessary to obtain the needed information.

The well-planned project utilized advertising prior to the start-up of January 1, 1978, a factor that, according to Doctor Pulliam, probably explains the near 100 per-cent participation by at-

tending physicians. Strictest confidentiality was maintained as each physician was assured that any data supplied would only be used for statistical analysis and that neither patient, hospital, nor physician would be identified in any way. The photostatic copies of charts were abstracted into a computerized protocol which included variables commonly found in high-risk perinatal care. Once abstracted, the photostatic copies were shredded.

Although an early analysis of vital statistics showed prematurity as the leading cause of perinatal mortality, the optimal point of intervention, according to Doctor Pulliam, is still unclear.

The Wyeth Section Award is presented each year at the annual clinical meeting to the section chairman from the winning section. This year's meeting will be held April 1-5 in New York City.

## MU Psychiatry, Surgery Residency Programs Accredited

Accreditation for two new residency programs —Psychiatry and Surgery—has been received by the Marshall University School of Medicine from the Liaison Committee on Graduate Medical Education, Dr. Robert W. Coon, MU Medical School Dean, announced.

The programs will be implemented July 1. The additions to the medical school's graduate programs join residencies in Family Practice, Internal Medicine, Pathology and Pediatrics, which are taught in cooperation with the school's Huntington clinical education affiliates, Huntington Veterans Administration Medical Center, Cabell-Huntington Hospital and St. Mary's Hospital.

The residencies will be directed by the department chairmen, Dr. Mildred Mitchell-Bateman, Psychiatry, and Dr. George J. Hill II, Surgery.

"The accreditation process is much the same as that for the medical school itself," Doctor Coon said. "After site visits and intensive program development reviews, the residencies received 'provisional accreditation.'

"After the programs have been operational for a period, the LCGME will review them again and consider full accreditation," he explained.

The Psychiatry Residency is a four-year program or a three-year program for those residents who have a post-M.D. year in any of the various primary care specialties.

Three residents will be accepted into the psychiatry program this summer, but when fully developed the program will provide training for 30 residents, who will be spread out among five different training sites, according to Doctor Bateman.

These sites include: the Huntington VA Medical Center, St. Mary's Hospital, Huntington Division (State) Hospital, Beckley Appalachian Regional Hospital and the Beckley VA Medical Center.

Residents also will have experiences outside the hospitals through placements at the Region II Community Mental Health Center, Green Acres Regional Center and the other area human service agencies, Doctor Bateman said.

The Psychiatry Residency is important to the medical school's overall program, strengthening it and giving it depth, according to Doctor Bateman. "Not only does the presence of a fully qualified psychiatry faculty enhance the educational opportunities, but the graduate program provides residents in other specialties the opportunity to develop inter-professional relationships with psychiatry residents," she added.

### Surgery Residency

The MU Surgery Residency, a five-year program, is based on the team approach to patient care and reflects the primary care philosophy which is an integral part of the school's medical education program, according to Doctor Hill.

"We've designed a program to train general surgeons who will have broad backgrounds in all of the surgical specialties. There will be greater emphasis placed on orthopedics, urology and other non-surgical specialties than residents coming out of other university medical centers normally receive." Doctor Hill noted.

"Surgeon/physicians practicing in rural areas —as we anticipate many of our graduates will— need extra knowledge in the other services, because they often will be providing primary care treatment when other physicians are not available," he explained, adding, "I believe this particular thrust makes our program relatively unusual."

When fully developed, the Surgery Residency will provide graduate training for 12 residents, who will be equally distributed among the affiliated hospitals—Cabell-Huntington Hospital, St. Mary's Hospital and the Huntington VA Medical Center. "During the beginning years of the resident program, equal distribution of the residents may not be possible," Doctor Hill noted.

The residency director said that the surgery program would graduate two residents per year when fully established.

## AMA Statement On Cost Containment Act

The American Medical Association released the following statement in reaction to the Carter Administration's Hospital Cost Containment Act of 1979, introduced last month in Congress:

"The so-called national 'voluntary percentage limit' of 9.7 per cent on hospital costs is, in fact, a thinly disguised mandated price control which could easily lead to rationing of care. The nation's current rate of inflation was recently conceded by Alfred Kahn, Ph.D., Chairman of the President's Council of Economic Advisors, to be 10 per cent, and in the face of that rate, no other segment of the economy has been asked to face these kinds of controls.

"The Carter Administration bill has been introduced despite a clear success at voluntary deceleration demonstrated by the health industry's Voluntary Effort (VE) to contain health care costs.

"Barry Bosworth, Chairman of the Administration's Council on Wage and Price Stability, told VE leaders in October, 1978, 'The design of the Voluntary Effort addresses the unique problems of its own field better than any other industry the Council on Wage and Price Stability has seen. Hospitals are one of the very few industries in which deceleration has succeeded and this is significant considering the rate of inflation in the rest of the economy.' Bosworth further recommended strengthening the program by use of methods like screening individual hospitals . . .

### VE Reduction Goals

"The VE set as its goal the reduction in the rate of increase in hospital costs a total of four percentage points over the two-year period 1978-79 from 15.6 to 11.6 per cent. At the end of 1978, the rate was down nearly 3 percentage points, at 12.8 per cent.

"The AMA, in further assessing the Administration's bill, believes that the labor pass-through provision makes the 9.7 per cent limit impractical to meet. Since this pass-through provision would be in place in the labor-intensive hospital industry, and would exempt only physicians and supervisors, the hospital industry would again be the only segment of the economy to be so regulated.

"The Association believes that an effort to meet these goals would result in an adverse impact on access and quality of care, and that the American people do not wish to see the standards of health care lowered in the face of an obvious and successful voluntary effort to lower health care costs in a workable manner that will maintain the high standards set by health care professionals."

## *Medical Meetings*

April 2-5—ACS, Denver.

April 3-4—Am. Broncho-Esophagological Assn., Los Angeles.

April 5-6—W. Va. Chapter, Am. Academy of Pediatrics, Parkersburg.

April 5-7—W. Va. Assn. of Blood Banks, Huntington.

April 6-10—Am. Assn. of Immunologists, Dallas.

April 22-25—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 23-28—Am. Academy of Neurology, Chicago.

April 26-29—ASIM, New Orleans.

April 30-May 4—Am. Occupational Health Conference, Anaheim, Calif.

May 2-5—W. Va. Chapter, ACS, White Sulphur Springs.

May 2-5—Va. Society of Ophthalmol. & Otolaryngol., Charlottesville.

May 9-13—Congress on Med. Education (AMA), Washington, D. C.

May 10-11—AMA Workshop on Chronic Mental Patients: Potentials for Community-Based Care, Chicago.

May 12-17—Ohio State Med. Assn., Columbus.

May 13-16—Am. Thoracic Society, Las Vegas.

May 13-17—Am. Urological Assn., New York.

May 24—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

June 10-12—Am. Diabetes Assn., Los Angeles.

July 21-26—AMA Delegates Summer Meeting, Chicago.

**Aug. 22-25—112th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.**

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 6-8—National Breast Cancer Conference (Am. Cancer Society), New York City.

Sept. 12-16—Medical and Chirurgical Faculty of the State of Maryland, New Orleans.

Sept. 21-23—Central Assn. of Obstetricians & Gynecologists, White Sulphur Springs.

Sept. 23-25—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Sept. 25-27—Kentucky Medical Association, Louisville.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 22-26—ACS, Chicago.

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# Surgical Management of Esophageal Scleroderma

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*Esophageal scleroderma is an interesting collagen disease with absence of peristalsis in the smooth-muscle portion of the esophagus and marked incompetence of the lower esophageal sphincter. Hiatus hernia is commonly associated with this disease. Because of gastroesophageal reflux the esophagus becomes markedly inflammed and ulcerated, with stricture developing rapidly.*

*Recently, antireflux procedures have been a major advance in the management of this disease, and the literature pertaining to such procedures has been reviewed.*

*The purpose of this paper is to present a patient with esophageal scleroderma and hiatus hernia with severe reflux esophagitis, ulceration and mild stricture who was treated with modified Nissen hiatus herniorrhaphy. Postoperatively, the symptoms of reflux esophagitis were improved immediately. Three months after the surgery, gastroesophagoscopy revealed completely healed esophageal ulceration and reflux esophagitis.*

*The pathophysiology of the reflux esophagitis with hiatus hernia and the three most commonly performed antireflux procedures are briefly discussed. The modified Nissen fundoplication procedure is described with diagrams.*

Esophageal scleroderma is an interesting collagen disease with absence of peristalsis in the smooth-muscle portion of the esophagus and marked incompetence of the lower esophageal sphincter. Hiatus hernia is commonly associated with this disease. Because of gastroesophageal reflux the esophagus becomes markedly inflammed and ulcerated, with stricture developing rapidly.

Recently, antireflux operations have been a major advance in the management of this otherwise untreatable disease. Henderson reported cases of esophageal scleroderma that were successfully treated with modified Belsey hiatal hernia repair.[3] Langdon *et al* also reported a case of sclerodermal disease of the esophagus that was treated with Belsey Mark IV hiatal herniorrhaphy.[6] O'Leary treated two patients who had esophageal reflux and stricture with Thal-Nissen fundoplication.[10]

The purpose of this paper is to present a patient with esophageal scleroderma and hiatus hernia with severe reflux esophagitis, ulceration and mild stricture who was treated with modified Nissen antireflux fundoplication and hiatus herniorrhapy with an excellent result.

### Case Report

A 47-year-old, Caucasian female, a paint sprayer, could not continue her job in 1967 because of severe arthralgia of her hands. She subsequently developed typical sclerodermal skin changes involving her face. In 1968, the patient began having epigastric and substernal burning stress, intermittent dysphagia and regurgitation of bitter and sour liquid and food. A diagnosis of scleroderma was confirmed. Inspite of various conservative measures, the symptoms of esophageal reflux including dysphagia were markedly aggravated. The patient also developed nocturnal regurgitation with nightly paroxysms of cough. An esophagogram in August, 1976, revealed hiatus hernia with functional disturbance of motility of the lower esophagus with marked reflux and evidence of an ulcer at the lower esophagus (Figures 1 and 2). Fiberoptic esophagoscopy revealed severe reflux esophagitis, ulceration and bleeding of the esophageal mucosa. On December 1, 1976, the patient underwent Nissen fundoplication and hiatal cruroplasty. Her postoperative course was uneventful

and the symptoms of reflux were improved remarkably. Since the surgery, the patient has been able to sleep flat in bed without suffering nocturnal regurgitation. On February 28, 1977, postoperative follow-up esophagoscopy revealed a completely healed esophageal ulceration and reflux esophagitis. To date, the patient is free of symptoms of reflux. Postoperative roentgenography revealed reduced hiatus hernia with freedom of reflux (Figures 3 and 4).

**Figure 1. Barium swallow studies in August, 1976, showing hiatus hernia with functional disturbance of the lower esophagus.**

### Comment

The most common organ other than the skin to be affected by scleroderma is the esophagus.

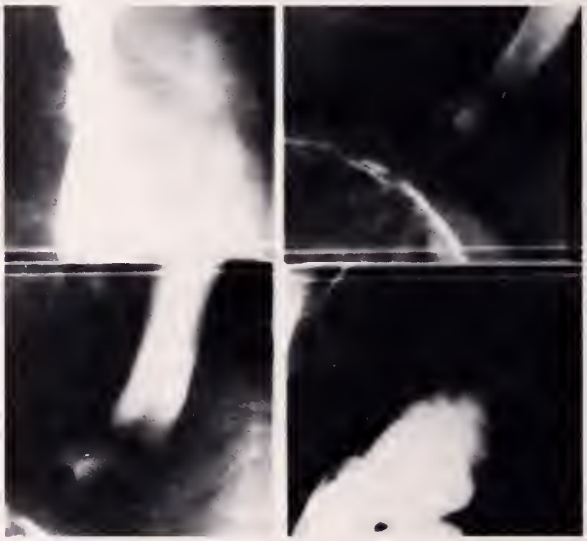

**Figure 2. Marked reflux and an evidence of ulcer at the lower esophagus are shown.**

**Figures 3 and 4. Postoperative roentgenography revealed reduced hiatus hernia free of reflux.**

In scleroderma patients, both High Pressure Zone (HPZ) and esophageal peristalsis are absent; however, severe esophageal reflux is usually associated. The reflux of gastric acid on the esophageal mucosa produces reflux esophagitis, ulceration and finally fibrosis and stricture.

Currently, in the treatment of hiatus hernia with reflux esophagitis, three common procedures are mainly performed in this country. Because the antireflux procedures have been developed within the last two decades, the operations are still known by the names of their originators:[9,11,12] Mark IV operation by Belsey, posterior gastropexy and calibration of the cardia by Hill, and gastric fundoplication devised by Nissen. All three procedures have advantages and disadvantages with reasonably good success rates. It has been demonstrated that antireflux repairs increase the amplitude of distal esophageal HPZ.[1,5,7,8] De Meester *et al* stated that Nissen fundoplication appears to be most effective among the three procedures considering both control of reflux and the increase in HPZ.[2] Postoperative "gas bloat" syndrome, temporary dysphagia due to narrow fundoplication ring and "slip Nissen" (slipping fundoplicated portion of the cardia) are prevented by modification of the procedure.

In my experience the modified Nissen procedure has been showing dramatic results in healing and improvement of severe reflux esophagitis which is caused by hiatus hernia. The fundoplication was performed by bringing the gastroesophageal junction below the diaphragm while the right and left margins of the right crus are approximated (Figure 5). The anterior and posterior walls of the fundus just distal to the gastroesophageal junction are pulled downward around the esophagus (Figure 6). The two folds which form a collar around the esophagogastric junction are then sewn together (Figure 7). To avoid "slip Nissen" the lower-most suture is tied to the suture which is on the esophagogastric ligament. In order to prevent postoperative stenosis, No. 40 lead-filled esophageal dilator was passed from the mouth into the stomach by the anesthetist before the fundoplication sutures were tied. The upper-most fundoplication suture is tied to the cruroplasty ligature in order to keep the gastroesophageal junction in the peritoneal cavity (Figure 8).


**Summary**

1. Esophageal scleroderma is commonly associated with reflux esophagitis, ulceration and stricture of the esophagus.

2. Recently, antireflux procedures have been a major advance in the management of this disease.

3. A 47-year-old, female patient with severe, long-standing esophageal scleroderma who was successfully treated with modified Nisen fundoplication is presented.

4. Pathophysiology of the reflux esophagitis with hiatus hernia and the three most commonly performed antireflux procedures are briefly discussed.

**Figure 5. After bringing the gastroesophageal junction below the diaphragm, the right and left margins of the right crus are approximated.**

**Figure 6. The anterior and the posterior walls of the fundus are pulled downward around the esophagus.**

**Figure 7. The two folds which form a collar around the esophagogastric junction are sewn together.**

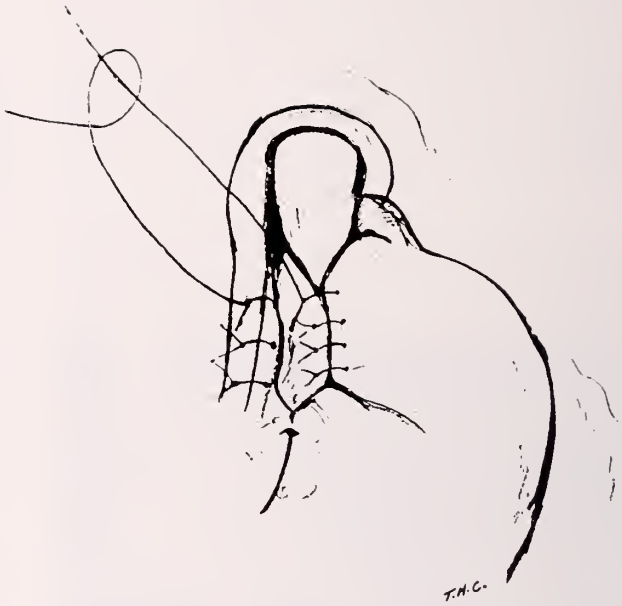


**Figure 8. The upper-most fundoplication suture was tied to the cruroplasty ligature in order to keep G-E junction in the peritoneal cavity.**

5. Modified Nissen fundoplication procedure is discussed with diagrams.

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# Ureteroileostomy: Sixteen Years' Experience*

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*One-hundred and sixty cases of ureteroileostomy are presented which were performed for various disease entities. Malignant tumors were present in 62 per cent of cases while benign conditions comprised 38 per cent. Operative mortality was 9.4 per cent. Wound infection and prolonged ileus were the most frequent early complications. Pyelonephritis was the most frequent late complication. Sixty per cent of patients had stable or improved renal function post diversion.*

URETEROILEOCUTANEOUS anastomosis has become the most popular method of permanent cutaneous urinary diversion since popularized by Bricker.[1] We will describe our experience with this procedure from 1960 through 1976 at West Virginia University Medical Center.

### Materials and Methods

The case records of 160 patients undergoing ureteroileostomy between August, 1960, and December, 1976, were reviewed. In cases where patients were not seen at our institution for more than a year since their previous visit, a questionnaire was sent to their last known residence inquiring whether the patient was living or dead, and if living, whether they had seen any other physicians for problems about their diversion.

### Indications

Indications for permanent urinary diversion are listed in Table 1.

Malignant tumors were in 101 patients while benign conditions were present in 59 patients. Of the malignant tumors, carcinoma of the bladder was present in 68 cases. Neurogenic disease of the bladder secondary to various etiologies was present in 41 cases in the benign groups.

Cystectomy was performed with urinary diversion in 72 patients with malignant disease.

### Technique

Preoperatively, all patients received a clear liquid diet, mechanical bowel cleansing, laxatives, Vivonex,* and antibiotics (Sulfasuxadine,** Neomycin, or Erythromycin base).

A left paramedian incision is made. The appendix is removed, the terminal ileum is inspected and its mesentery examined by transillumination. A site for distal transection is selected approximately six inches proximal to the ileocecal junction. An ileal segment approximately 20 centimeters in length is usually sufficient unless the patient is obese, in which case a slightly longer segment will be needed due to the thick abdominal wall to be traversed.

The area of section is identified and the bowel is divided between clamps, making sure of an adequate blood supply. Bowel continuity is reestablished with a two-layer technique. More recently, however, we have been using the gastrointestinal stapling device,*** especially when cystectomy is done in conjunction with the diversion. The ureterointestinal anastomosis was performed on the antimesenteric surface of the segment in the manner of Bricker,[1] or anastomosed to the end of the segment in the manner described by Wallace.[2] Interrupted 4-0 chromic catgut sutures were used for the anastomosis.

*This paper was written while Doctor Knight was a Resident in Urology at West Virginia University School of Medicine, Morgantown.

*Eaton Laboratories
**Merck Sharp & Dohme
***Autosuture, Inc.

**TABLE 1**
**Indications for Ureteroileostomy**

| | | |
|---|---|---|
| Carcinoma of the Bladder | | 68 |
| Neurogenic Bladder | | 41 |
| Myelomeningocele | 12 | |
| Idiopathic | 12 | |
| Spinal Cord Injury | 9 | |
| Demylenating Disease | 6 | |
| Spina Bifida | 2 | |
| Carcinoma of Cervix | | 21 |
| Intractable Stricture | | 10 |
| Exstrophy of Bladder | | 6 |
| Carcinoma of Rectum | | 5 |
| Carcinoma of Urethra | | 2 |
| Carcinoma of Vagina | | 2 |
| Carcinoma of Prostate with Squamous Cell Carcinoma of Bladder | | 1 |
| Carcinoma of Prostate | | 1 |
| Urethroperineal Fistula | | 1 |
| Posterior Urethral Valves with Massive Hydronephrosis | | 1 |
| Recurrent Carcinoma of Penis | | 1 |
| TOTAL | | 160 |

Temporary gastrostomy, after the manner of Stamm,[3] was done in 67 patients, and nasogastric suction was used in 92 patients. We feel that temporary gastrostomy offers certain advantages over nasogastric suction, especially in pediatric patients and in patients with compromised pulmonary systems. Some of these advantages are:

1. Patient comfort
2. No pulmonary complications
3. No failure of gastrostomy stoma to close within 48-72 hours
4. More efficient gastric decompression due to larger lumen tube

Following cystectomy, a #22F Foley catheter with balloon inflated to 75 cc. was inserted through the urethra and left on traction until drainage stopped. This provides excellent drainage, good hemostasis, and is useful to detect a ureteroileal anastamotic leak.

### Mortality

There are 89 patients who have expired. The number of patients who have died along with their respective diseases are found in Table 2.

There were 15 operative deaths for an operative mortality rate of 9.4 per cent. Table 3 lists the operative deaths.

**TABLE 2**
**Mortality**

| | |
|---|---|
| Carcinoma of Bladder | 54 |
| Carcinoma of Cervix | 19 |
| Neurogenic Bladder with Pyelonephritis | 4 |
| Carcinoma of Rectum | 3 |
| Urethral Stricture with Pyelonephritis | 3 |
| Carcinoma of Urethra | 2 |
| Carcinoma of Vagina | 1 |
| Carcinoma of Prostate | 1 |
| Posterior Urethral Valves with Masive Hydronephrosis | 1 |
| Urethroperineal Fistula Secondary to Carcinoma of Rectum | 1 |
| TOTAL | 89 |

**TABLE 3**
**Operative Mortality**

| | | |
|---|---|---|
| Extensive Terminal Carcinoma | 3 | |
| Renal Failure | 3 | |
| Peritonitis Secondary Ureteroileal Leak | 3 | |
| Acute Myocardial Infarction | 2 | |
| Pulmonary Embolus | 2 | |
| Methotrexate Toxicity | 1 | |
| Inferior Vena Cava Thrombosis | 1 | |
| TOTAL | 15 | (9.4%) |
| Benign Disease | 1 | (6.6%) |
| Malignant Disease | 14 | (93.4%) |

There were 56 cystectomies performed with diversion for carcinoma of the bladder, and 41 patients have died. There were 13 diversions done for palliation without cystectomy, and all 13 are dead.

There were 16 extenterations done for malignant disease of the cervix, rectum, urethra, penis, and vagina, and 11 are dead. Thirteen palliative diversions were done for carcinoma of the cervix and one each for carcinoma of the vagina and prostrate; all patients have died. One patient who had a diversion for a urethroperineal fistula secondary to carcinoma of the rectum is dead. Eight patients with benign disease have since died.

### Complications

Complications were divided into early and late. Early complications were those that occurred within 30 days of surgery, and late were those occurring afterward. Early complications were noted to occur more frequently in patients with malignant (63 per cent) disease versus those with benign (37 per cent) disease, while the reverse was true in late complications: benign, 56 per cent; malignant, 44 per cent. Others have reported similar findings.[4,5,6,7]

### Early Complications

Early complications are listed in Table 4. Wound infection and prolonged ileus were the most common early complications: 11.8 and 6.9 per cent, respectively. Preoperative antibiotics did not seem to influence the rate of wound infection.

**Table 4**
**Early Complications**

| | # | % |
|---|---|---|
| Wound Infection | 19 | 11.8 |
| Ileus | 11 | 6.9 |
| Pneumonitis | 8 | 5.0 |
| Dehiscence | 8 | 5.0 |
| Ureteroileal Leak | 7 | 4.4 |
| Small Bowel Obstruction | 4 | 2.5 |
| Intestinal Fistula | 3 | 1.9 |
| Stress Ulcer | 3 | 1.9 |
| Renal Failure | 3 | 1.9 |
| Gram Negative Septicemia | 2 | 1.2 |
| Pelvic Abscess | 2 | 1.2 |
| Myocardial Infarction | 2 | 1.2 |
| Evisceration | 2 | 1.2 |
| Pulmonary Embolus | 2 | 1.2 |
| Severe Acidosis | 2 | 1.2 |
| Volvulus of Ileal Segment | 1 | 0.6 |
| Vesicovaginal Fistula | 1 | 0.6 |
| Hepatitis | 1 | 0.6 |
| Psychosis | 1 | 0.6 |
| Foot Drop (Sciatic Nerve Compression) | 1 | 0.6 |

Pneumonitis occurred in eight (five per cent) patients, all of whom had nasogastric tubes for postoperative decompression.

Ureteroileal leak occurred in seven (4.4 per cent) patients. Five of these patients had long-standing neurogenic bladder disease with reflux and ureteritis. The other two patients had received preoperative radiation therapy for bladder tumors. All these patients had surgical intervention, with three patients dying postoperatively from peritonitis. An adequate blood supply with minimal freeing of the ureter from its bed, as well as ligation of the ureter at the pelvic brim in a previously irradiated patient are essential in the production of a satisfactory ureteroileal anastomosis.

Small-bowel obstruction occurred in four patients. Three patients underwent exploration, and adhesions were found as the cause of obstruction in all. One patient responded to conservative management.

Wound dehiscence occurred in eight patients, with eventual evisceration in two patients with carcinoma of the bladder.

One 20-month-old infant with myelomeningocele had an inferior vena cava thrombosis and eventually died. Another patient had transient foot drop from compression of the sciatic nerve from a retractor at surgery.

Electrolyte disturbances were transient and were treated medically.

### Late Complications

Pyelonephritis was our most frequent late complication occurring in 12 cases. Five of these patients had preoperative bouts of pyleonephritis. If there was no obstruction at the ureteroileal anastomosis, pyelonephritis always responded promptly to adequate antibiotic therapy. Failure to respond to seemingly appropriate therapy always suggests poor drainage, and careful upper tract evaluation should be made as well as determination of residual urine.

Mechanical problems with the appliance and acidosis developed in nine patients. Most of the appliance problems were remedied by changing to different appliances and/or adhesive. The patients with acidosis were treated by close observation if mild ($CO_2 < 20 > 15$) and bicarbonate if $CO_2 < 15$.

Progressive hydronephrosis occurred in six patients. Five were found to have ureteroileal strictures and had to have their ureters reimplanted into the ileal segment. One patient, whom we are watching at the present time, had hydronephrosis in the upper segment of a duplex system.

Stomal stenosis occurred in eight patients, three of whom needed stomal revision with good results. The remaining patients responded well to periodic dilatations.

Chronic bacteruria occurred in seven patients with myelomeningocele despite suppressive medication. To date, no upper-tract deterioration has occurred, the longest being followed for nine years.

Pyocystis developed in seven patients in whom the bladder was not removed. Six of these patients developed bacteremia despite trials with bladder irrigations with antibiotic solutions. Three patients had impassable urethral strictures and three had neurogenic bladders. All six had a subsequent cystectomy. In female patients, a vesicovaginal fistula, according to Spence,[8] is created to prevent any accumulation of secretions. One patient continued to have constant vaginal drainage of foul smelling fluid. She also required cystectomy. Other less frequent complications are found in Table 5.

### Renal Function

We monitor our patients with frequent determination of BUN for following their progress postoperatively. Generally, we get an IVP at

**TABLE 5**
**Late Complications**

| | # | % |
|---|---|---|
| Pyelonephritis | 12 | 8.2 |
| Mechanical Problems with Appliance | 9 | 6.2 |
| Acidosis | 9 | 6.2 |
| Stomal Stenosis | 8 | 5.5 |
| Chronic Bacteriuria | 7 | 4.8 |
| Pyocystis | 7 | 4.8 |
| Progressive Hydronephrosis | 6 | 3.8 |
| Ureteroileal Stenosis | 5 | 3.1 |
| Bowel Obstruction | 4 | 2.7 |
| Renal Calculus | 3 | 2.1 |
| Suture Abscess | 2 | 1.4 |
| Incisional Hernia | 2 | 1.4 |
| Serum Hepatitis | 1 | 0.7 |
| Ureteral Calculus | 1 | 0.7 |
| Pulmonary Embolus | 1 | 0.7 |
| Partial Wound Dehiscence | 1 | 0.7 |
| Rectovaginal Fistula | 1 | 0.7 |
| Ureteroileal Leak | 1 | 0.7 |

**TABLE 6**
**Renal Function**

| | # | % |
|---|---|---|
| BUN W.N.L. preop & postop | 75 | 49 |
| BUN W.N.L. preop ↑ postop | 37 | 24 |
| BUN ↑ preop W.N.L. postop | 17 | 11 |
| BUN ↑ preop & postop | 24 | 16 |

approximately three months postop and then usually at intervals as indicated clinically, i.e., deteriorating BUN, hematuria, pyelonephritis, etc. The preoperative and follow-up BUN was available in 153 of 160 patients. The follow-up BUN represents that BUN at the patient's last clinic visit or prior to death (Table 6).

Seventy-five (49 per cent) of patients with a normal BUN preoperatively continued to have normal results postoperatively, while 37 (24 per cent) deteriorated postoperatively. Of those patients with increased BUN preoperatively, only 17 (11 per cent) became normal postoperatively, and 24 (16 per cent) remained elevated.

### Discussion

Ileal segments compare favorably with other methods of urinary diversion. There is separation of urinary and fecal stream, and the short segment of ileum offers a fast runoff with minimal amounts of residual urine, thus reducing absorption of urinary constituents.

Our operative mortality was 9.4 per cent overall with 93.4 per cent occurring in patients with malignant disease and 6.6 per cent in those with benign conditions. This has been the general pattern in other series.[5-7,9] Creevy[10] had a 5.9 per cent operative mortality in his review of patients with benign disease only. Generally, the mortality rates are lower for children having the procedure.[11-13] Parkhurst reported 14 per cent mortality in 93 patients.[34]

Wound infection is a common complication and indeed was our most common early complication. This may progress to dehiscence (5.0 per cent) and to the eventual problem of evisceration. This problem was encountered by Cordonnier[15] in his review. We stress meticulous hemostasis and the closure with nonabsorbable suture to prevent this unpleasant complication. Prolonged ileus can aggravate and enhance dehiscence and/or evisceration, and adequate gastric decompression is mandatory.

Pneumonitis occurred in five per cent of patients, all of whom had nasogastric decompression. We now advocate temporary gastrostomy in those patients with serious preoperative pulmonary problems.

Ureteroileal leak is a serious problem that needs to be recognized and treated aggressively. Three of our 15 operative deaths were due to peritonitis secondary to an unrecognized leak at the ureteroileal anastomosis. A meticulous ureteroileal anastomosis and preservation of ureteral blood supply is paramount in ensuring this problem does not occur. A rise in BUN without a concomitant rise in serum creatinine, prolonged ileus, fever of undetermined origin, or prolonged wound or operative site drainage all can be warnings of this very serious problem.

### Late Complication

Pyelonephritis was our most frequent late complication, occurring in 12 (8.2 per cent) of patients. This also was Cordonnier's[15] most frequent late complication. Five of these 12 patients had preoperative episodes of pyelonephritis. Failure to respond to adequate antibiotic therapy necessitates further investigation to rule out ureteral or ureteroileal stenosis or stomal stenosis as points of obstruction. There should be free ureteroileal reflux in a normal system.

Stomal stenosis occurred in eight patients. Removal of a button of tissue including skin, fascia, and peritoneum has greatly eliminated this problem. We also have found fewer stomal problems in those patients who had a triangular rather than a circular piece of skin removed. Cordonnier[15] advocates that regular stomal dilatations in the first few postoperative months are essential. This problem can generally be solved with stomal dilatations, although three of our patients needed surgical stomal revisions.

Progressive hydronephrosis occurred in six patients, five of whom had ureteroileal stenosis and needed surgical revision. Koehler[16] showed that 51 per cent of normal kidneys preoperatively had hydronephrosis early in the postoperative period, probably secondary to edema at the ureteroileal anastomosis. Within three months, 91 per cent of these renal units came back to normal. In the same study, 58 per cent of kidneys that were hydronephrotic preoperatively became normal radiologically late in the postop period, while 43 per cent remained hydronephrotic. Late-developing ureteroileal strictures requiring operative revision were noted in 17 of 382 patients in Koehler's series. He states that if hydronephrosis has not resolved by three months and is associated with absence of reflux on ileography, exploration of the ureteroileal anastomosis is indicated.

### Pyocystis in Seven Patients

Pyocystis occurred in seven patients, all of whom eventually required cystectomy to control their disease. Generally, this problem does not occur in patients who have no organic or neurologic obstruction at the bladder neck and will respond to bladder irrigations with antibiotic solutions. Three of our patients had impassable urethral strictures and the other four had neurogenic bladders. Remigailo[4] reported this as his most frequent late complication (17.8 per cent),

with 5.6 per cent requiring cystectomy. Engle[17] reported 21.5 per cent of 105 patients having pyocystis, all requiring cystectomy. Of these, 40 per cent had impassable strictures, and 16 per cent had neurogenic bladders.

Urinary calculi occurred in four patients (three renal, one ureteral). Dretler[18] hypothesized that urinary stasis, hyperchloremic acidosis, hypercalciuria secondary to bone buffering of chronic bicarbonate loss, and alkaline urine often found in conjunction with urea-splitting organisms all favor formation of calculi. Prevention of residual urine, thiazide diuretics, oral alkali replacement, and treatment of any infection will help prevent stone formation. Although we had a 6.2 per cent incidence of acidosis, our calculi incidence was only 2.7 per cent. We attribute this to following the above guidelines in treating any patient quickly if he has conditions conducive to stone formation. Other series reporting calculi were Remigailo (2.6 per cent),[4] Ellis (7.3 per cent),[7] Kerr (1.9 per cent),[9] Bowles (20 per cent),[11] Delgado (6.2 per cent), [12] and Cordonnier (4.7 per cent).[15]

Ureteroileostomy still remains the most useful method of permanent cutaneous urinary diversion in our experience. With the exception of benign disease in young patients where colon conduits with antireflux procedures can be performed, ileal loop diversion is the most efficient method of cutaneous urinary diversion.

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# Thyroid Storm In A Decade Of Clinical Practice

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*Of 526 patients admitted with hyperthyroidism between 1965-1975, 10 fulfilled criteria for the diagnosis of thyroid storm. Thyroid storm occurred postoperatively in seven patients; three patients were non-surgical. There were nine females and one male, and the age distribution was from 17 to 61.*

*Nine survivors in the series were all controlled within 24 hours by aggressive treatment. In five patients treated with adrenergic blocking agents, control was more rapid and effective.*

THE clinical syndrome termed "thyroid storm" or "thyroid crisis," although rare, remains an emergency requiring prompt recognition and early treatment. McArthur defined thyroid storm as a "life endangering augmentation of the symptoms of thyrotoxicosis."[1]

The clinical picture of thyroid storm is dominated by manifestation of severe hypermetabolism. Fever and profuse sweating are almost invariably present and may be extreme. Tachycardia, tremulousness and restlessness are often present. As the crisis progresses, apathy, stupor and coma may supervene with a profound fall in blood pressure and death.

Two varieties of thyroid storm are described. The term "surgical storm" is applied when the syndrome follows surgical treatment of hyperthyroidism, and the second variety, "medical storm," occurs in a thyrotoxic patient in response to one or more precipitating factors. These factors include infection, trauma, severe fright, diabetic ketoacidosis, toxemia of pregnancy, parturition, etc.[2]

The lethal phase of thyroid crisis was accurately described by Lahey in 1928.[3] In 1930, a review by Clute of the operative mortality in hyperthyroidism at the Lahey Clinic revealed that 75 per cent of the deaths were caused by "thyroid storm."[4] In a six-year period prior to 1930, Rawson reported 37 fatal cases, accounting for 70 per cent of the deaths associated with thyroidectomies at the University of Michigan.[5] A similar experience was reported from Massachusetts General Hospital by McArthur, Rawson *et al;*[1] however, with the preoperative administration of iodine[6] and antithyroid drugs,[7] thyroid crisis has become a rarity[8] in the surgical treatment of thyrotoxicosis. Even when thyroid crisis does occur, newer therapeutic measures have significantly reduced the mortality. Between 1940 and 1955, 14,374 thyroidectomies were performed at the Mayo Clinic, and there were no reported cases of thyroid crisis.[9] There were no cases of postoperative thyroid crisis reported from Johns Hopkins University between 1948 and 1960.[10] In a 10-year period prior to 1964, Thompson and Fry reported only two cases of thyroid crisis at the University of Michigan.[11]

A review of patients diagnosed with thyroid storm between 1965 and 1975 at Harper Hospital, Detroit, forms the basis for this report.

### Patients

The diagnosis of hyperthyroidism was made in 526 patients who were admitted to Harper Hospital between 1965 and 1975. Surgery for hyperthyroidism was performed on 101 patients during the same period, and 10 were diagnosed and treated for "thyroid storm" (Table 1).

Table 2 shows the yearly admissions, the number of operations for hyperthyroidism and the occurrence of thyroid crisis.

The age, sex and race distribution of 10 patients with "thyroid storm" was as follows: The youngest patient was 17 and the oldest, 61. There were nine females and one male in the series. Six patients were black and four were white.

Storm occurred as an aftermath of thyroid surgery in seven patients and, in three patients, other precipitating factors were responsible. One patient developed a staphylococcal enterocolitis while on treatment with Tapazole. The second patient had viral pharyngitis, and thyroid storm in the third patient followed a psychotic episode.

Nine patients had Graves' disease and one patient had a toxic multi-nodular goitre. All 10 patients had received antithyroid therapy at some time prior to diagnosis of storm. Five patients were treated with propylthiouracil and Lugol's iodine solution. Methimazole was used in four patients, potassium iodide in three, and one patient was treated with radioactive iodine. The duration of uncomplicated thyrotoxicosis, as determined by history, was from six months to four years.

**TABLE 1**

| *Case* | *Year* | *Age* | *Sex* | *Race* | *Diagnosis* | *Treatment* | *Outcome* |
|---|---|---|---|---|---|---|---|
| 1 | 1965 | 35 | F | W | Graves Disease | Reserpine, Sodium Iodide, Steroids | Survived |
| 2 | 1967 | 59 | F | W | Toxic Nodular Goitre | Steroids Sodium Iodide Reserpine Guanethedine | Died |
| 3 | 1968 | 18 | M | N | Graves Disease | Guanethedine Sodium Iodide Steroids Reserpine | Survived |
| 4 | 1968 | 61 | F | W | Graves Disease | Reserpine Sodium Iodide Steroids Propylthiouracil | Survived |
| 5 | 1969 | 21 | F | N | Graves Disease | Reserpine Propylthiouracil Sodium Iodide Steroids | Survived |
| 6 | 1970 | 27 | F | N | Graves Disease | Sodium Iodide Reserpine Steroids Propranolol | Survived |
| 7 | 1972 | 25 | F | N | Graves Disease | Sodium Iodide Propranolol Reserpine | Survived |
| 8 | 1972 | 29 | F | W | Graves Disease | Steroids Propranolol Sodium Iodide | Survived |
| 9 | 1974 | 23 | F | N | Graves Disease | Propranolol Steroids Reserpine | Survived |
| 10 | 1975 | 17 | F | N | Graves Disease | Sodium Iodide Steroids Propranolol Reserpine | Survived |

**TABLE 2**
**Chronology of Surgery for Hyperthyroidism**

| *Year* | *Total No. of Cases* | *Surgery* | *Thyroid Storm* |
|---|---|---|---|
| 1965 | 52 | 10 | 1 |
| 1966 | 66 | 10 | 0 |
| 1967 | 52 | 7 | 1 |
| 1968 | 48 | 11 | 2 |
| 1969 | 38 | 11 | 1 |
| 1970 | 36 | 11 | 1 |
| 1971 | 60 | 10 | 0 |
| 1972 | 76 | 12 | 2 |
| 1973 | 40 | 8 | 0 |
| 1974 | 38 | 6 | 1 |
| 1975 | 20 | 5 | 1 |
| | 526 | 101 | 10 |

The seven patients who underwent thyroid surgery had indices of thyroid function which included determinations of serum $T^3$ $T^4$, radioactive iodine uptake, and thyroid scan one to four weeks prior to surgery. These laboratory tests suggested that the toxic symptoms were adequately controlled, and the patients appeared clinically to be euthyroid.

There were nine survivors and one fatality in this series, reflecting an overall mortality of 10 per cent. The only fatality was recorded in a patient who underwent thyroidectomy. This patient had severe congestive heart failure, diabetes mellitus and, at postmortem, an adrenocortical ademona was also found. One patient had cholestatic jaundice, possibly due to propylthiouracil therapy. Another had agranulocytosis as a result of Methimazole therapy and presented with staphylococcal enterocolitis and septicemia.

### Physical Findings and Treatment

Fever was demonstrable in all patients. Body temperatures varied from 101° Fahrenheit to 106° Fahrenheit at the height of the crisis. The pulse range was between 120-200 beats per minute. Arrhythmia, congestive heart failure, and deep coma for about four hours were noted in the patient who succumbed. Diarrhea was seen in two patients, and cholestatic jaundice in one patient.

Following diagnosis and treatment, the duration of storm was less than 24 hours in all patients who survived.

Propylthiouracil was used in large doses in two patients who were given 200 mg. every six hours by a nasogastric tube. Nine patients in this series received reserpine and two received guanethidine. Five patients received propranolol intravenously, after it became commercially available, in doses of 10 to 30 mgs. every four hours. In these patients, tachycardia was controlled more rapidly, and the duration of storm was less than 12 hours.[19]

No patients in the present series were observed to have symptoms or signs of hypoparathyroidism at any time in the postoperative period, and calcium-containing solutions were not used in treatment.

### Discussion

Rives and Shepard[12] reported an increased incidence of storm in persons of more than 40 years of age; however, others have not found this difference.[1,13]

A large variety of stressful situations can cause "thyroid storm." Recent reports indicate that infection is probably the most common factor[13,14,15] that precipitates thyroid storm. In the literature, the so-called "medical storm" has been responsible for most cases of thyroid storm.[15,16]

A review of patients undergoing thyroidectomy without complication of thyroid storm had resting pulse rates below 100 beats per minute. Thyroid crisis, once the major cause of death following thyroidectomy, is seen only on rare occasions by the surgeon today. Uncomplicated thyroid crisis combines features of both an accentuation and a distortion of the usual thyrotoxic state. Fever, which is almost invariably present, is considered by most to be a *sine qua non* in the diagnosis of this syndrome.

Once a crisis has developed, therapy must be aggressive and complete. Table 3 summarizes the number of patients with thyroid storm and the mortality rate observed in various series. Maddock,[20] in 1937, presented 88 cases with a mortality rate of 100 per cent. Through the years, with early diagnosis and adequate aggressive therapy, the mortality rate has been reduced considerably. Dillon *et al*[21] presented eight patients treated with reserpine who survived.

The pathogenesis of thyroid storm remains poorly understood. However, available evidence indicates that therapy should include adrenergic blockade, steroids and thyroid-blocking agents such as thioureas and iodides.

**TABLE 3**
**Reported Series of Thyroid Storm**

| *Year* | *Author* | *No. of Cases* | *No. of Deaths* | *% Mortality* |
|---|---|---|---|---|
| 1937 | Maddock *et al* | 88 | 88 | 100% |
| 1947 | McArthur *et al* | 36 | 24 | 67 |
| 1951 | Rives & Shepard | 25 | 10 | 40 |
| 1952 | Szilagi *et al* | 4 | 0 | 0 |
| 1957 | Canary *et al* | 2 | 0 | 0 |
| 1959 | Ranson & Sonnenberg | 7 | 2 | 28 |
| 1959 | Waldstein *et al* | 21 | 6 | 28 |
| 1969 | Mazzaferri *et al* | 22 | 4 | 7 |
| 1970 | Dillon *et al* | 8 | 0 | 0 |
| 1977 | Goonewardena & Silva | 10 | 1 | 10 |

The treatment of thyroid storm is aimed at correcting the following parameters: excess thyroid hormone, increased adrenergic activity and probably relative adrenal insufficiency. Iodides retard the acute release of hormone from the thyroid gland and play a central role in the treatment of thyroid storm.[17]

Reserpine and guanethidine will metabolize and remove intracellular catecholamines and also inhibit release of neurotransmitters at postganglionic neuronal level. It appears that certain manifestations of thyrotoxicosis are produced by heightened sensibility to sympathetic amines.[18]

Steroid therapy has frequently been recommended for correction of adrenal insufficiency and the inhibition of thyroid hormone release that occurs in thyroid storm.[18]

In recent years, surgical thyroid storm has become a rarity; however, in our series of 10 cases, seven followed surgery for hyperthyroidism. A recent report by Jacobs, Mackie *et al*[22] indicates that thyroid crisis can develop in a patient with a normal concentration of thyroxine and a normal free thyroxine index.

Five of the seven patients who underwent thyroidectomy had recorded sleeping pulse rates greater than 100 per minute. We consider this to be a valuable indicator of the hyperthyroid state in the preoperative patient. In the single fatality, the presence of multiple associated diseases played a significant role in the death of the patient.

### Conclusion

Thyroid storm usually occurs in patients with Graves' disease but may be related to toxic multinodular goitre. Surgical thyroid storm occurred more often than medical storm in the present series. The crisis occurred in spite of apparent adequate preoperative control as evidenced by

preoperative thyroid function studies. Propranolol is a valuable adjunctive drug in the treatment of established storm and has reduced the mortality rate considerably.

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# Medical Grand Rounds

**From the West Virginia University Hospital**

Edited By
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## Update In Coronary Artery Bypass Surgery

Discussant:
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*Coronary artery bypass surgery is strongly indicated in two groups of patients: those with disabling angina pectoris not responsive to medical therapy, and those with symptoms and a hemodynamically-significant lesion of the main left coronary artery.*

*In this report an attempt is made to summarize a rational approach that can be used in different subsets of patients with symptomatic coronary artery disease. Management of patients with significant main left coronary artery lesions, unstable angina pectoris and chronic angina pectoris are handled separately.*

PHYSICIANS practicing in a primary care setting often are required to manage patients with angina pectoris. While use of long-acting nitrates and/or beta blocking agents produces symptomatic relief in a large number of patients, there are some who continue to have incapacitating angina despite adherence to a good medical program. In this latter group, considerable symptomatic relief can be obtained by coronary artery bypass surgery (CABS).

At this time there is no hard data that supports the contention that coronary artery bypass surgery prolongs life in patients with coronary artery disease except for patients with significant lesions of their main left coronary artery. However, there is suggestive evidence that patients with significant two- or three-vessel coronary artery disease with either a normal or only moderately depressed ejection fraction may have their life prolonged by undergoing this procedure. In these patients, while the only absolute indication for coronary bypass surgery is angina pectoris which is not responsive to medical therapy, there are centers where surgical management would be strongly recommended.

Finally, there are those patients in whom coronary artery bypass surgery is of doubtful value. This includes patients with significant two- and three-vessel coronary artery disease who have minimal symptoms as well as patients with diffuse coronary artery disease and far advanced left ventricular dysfunction as evidenced by a markedly depressed ejection fraction.

At this time, coronary bypass surgery is not recommended for isolated proximal lesions in the right coronary artery or left circumflex artery unless the patient is incapacitated by angina pectoris which is not responsive to medical therapy.

### Each Case Individualized

While CABS generally provides pain relief in medically-unresponsive cases, there are conflicting reports concerning efficacy of this surgery in prolonging life and preventing major cardiac events.[1,2] Unfortunately, this debate has often spilled over into the lay press, and patients who do not understand both sides of the issue wonder why they have not been sent for this "life-saving" procedure. The appropriate position is that, in most subsets of patients with significant coronary artery disease, the available data does not support the contention that the likelihood of sudden death or major cardiac events is significantly reduced by surgical treatment (CABS).

Yet, this improvement in prognosis does occur in some subsets, i.e., those with significant main left coronary artery lesions. As in most issues, the moderate position is probably best. That is, there are some clear-cut indications for considering CABS and there are cases where medical management should be used. Each case must be individualized on its own merits.

In this report an attempt is made to summarize a rational approach that can be used in different subsets of patients with symptomatic coronary artery disease. Management of patients with significant main left coronary artery lesions, unstable angina pectoris and chronic angina pectoris will be handled separately.

#### Significant Main Left Coronary Artery Lesions

Cases with significant involvement of the main left coronary artery (> 70 per cent obstruction) often cluster at one end of the spectrum of symptoms seen in patients with coronary artery disease. They tend to have more severe angina pectoris, often occurring at rest, and dyspnea is common with episodes of angina. Evaluation frequently reveals a markedly positive exercise stress test at low levels of exertion.[3] A main left lesion seldom occurs as an isolated finding. More than 90 per cent have additional significant obstructing lesions in the other coronary vessels, 66 per cent have mild to moderate impairment of left ventricular contractility, and 50 per cent have an elevated left ventricular end diastolic pressure.[4,9]

Studies on the natural history of patients with this lesion show that they are not a homogeneous group and the prognosis is related to the number and degree of associated abnormalities. As a rule, the three-year mortality rate is greater in those patients also exhibiting impaired left ventricular contractility, a decreased cardiac index, an elevated left ventricular end diastolic pressure and extensive involvement of the remaining coronary arteries. The more abnormalities present then the worse is the prognosis.

An important consideration is whether medical or surgical therapy can be shown to affect favorably the natural history of patients with main left lesions. The literature indicates that the average overall annual mortality rate with main left lesions is about 15 per cent (annual mortality of 5 per cent has been reported for all angina pectoris patients).[5] Two reported series on the results of therapy for significant main left lesions showed that the two-year survival rate in the surgical group was 87 per cent and 86 per cent, respectively, while both studies showed a 65 per cent survival rate for the medical groups.[6,7]

In addition to this improved survival rate, both studies showed that angina pectoris and exercise capacity were generally improved by surgery but not by medical management. As a result of these studies, it is now recommended that all patients with significant main left coronary artery lesions undergo coronary artery bypass surgery if they are judged to be adequate surgical candidates.

The management of a patient with a suspected main left lesion can be summarized as follows:

1. Evaluation should include cardiac catheterization with coronary angiography. It should be kept in mind that this procedure, which generally has a mortality rate of 0.1 per cent in all patients with angina pectoris, has a mortality rate of 1 to 2 per cent with main left lesions.[8] The basis for this much higher mortality rate is due to the unexpected and sudden occurrence of myocardial infarction either during the catheterization procedure or within 24 hours after the procedure is completed. Because this complication may occur in any one of these patients with cardiac catheterization, it should be done with a cardiovascular-surgery standby so that emergency bypass surgery can be considered if complications occur in the laboratory. In addition, because the infarction may occur several hours after the catheterization has been completed, these patients must be monitored continuously for 24 hours after the procedure.

2. Finally, if based on the hemodynamic and angiographic data the patient is judged to be a surgical candidate, it must be pointed out that the risk of this surgery is in the neighborhood of 5 to 6 per cent, whereas the risk of all patients with angina pectoris undergoing CABS is generally quoted as being less than 2 per cent.

#### Unstable Angina Pectoris

Unstable angina pectoris may be defined as a marked increase in frequency and/or severity of pain, unusually prolonged periods of pain which mimic myocardial infarction or chest pain which occurs at rest. It may occur in patients who have had antecedent stable angina pectoris or it may be the initial presenting problem of patients with ischemic heart disease. Natural history studies and careful monitoring in coronary care units have yielded important information concerning these patients. They have an overall in-hospital mortality rate of one per cent, whereas the overall mortality rate for patients hospitalized with definite myocardial infarction is somewhere between 10 and 15 per cent.[10] Thus, immediate prognosis is rather good. However, unstable angina pectoris varies significantly from the chronic variety. The mortality rate at

one year is 10 per cent, whereas this figure is approximately five per cent for patients with chronic stable angina pectoris. Patients with unstable angina have a 20 per cent incidence of acute myocardial infarction within a year after its onset.

The majority of patients presenting with unstable angina pectoris have greater than 70 per cent obstruction in at least two, and frequently three, of their coronary arteries. On the basis of myocardial scintigraphic studies, these patients have reversible perfusion defects as well as reversible abnormalities of LV contractility,[11,12] which are correctable following successful coronary re-vascularization surgery.

In the early 1970s, a debate raged as to whether patients with unstable angina pectoris should be handled initially with medical management to try to clear the pain or should undergo immediate cardiac catheterization with coronary cineangiography with a view toward emergency coronary re-vascularization. A recent study shows that emergency re-vascularization in these cases is associated with a greater-than-expected mortality risk from the operation as well as a greater-than-expected incidence of perioperative infarction.[13] Thus, it is generally agreed that patients with unstable angina pectoris should first have intensive medical therapy in an attempt to decrease or totally eliminate episodes of chest pain.

### ECG Changes

Continuous monitoring of patients with unstable angina pectoris has shown that ECG changes of ischemia may precede the onset of pain by 10 to 15 minutes. Shortly after the ECG changes occur, there is a slight increase in heart rate and a small elevation in blood pressure with an increase in left ventricular end diastolic pressure. Several minutes after these hemodynamic alterations occur, the patient begins to experience pain. Since these studies indicated that the underlying problem in patients with unstable angina pectoris is recurrent and reversible myocardial ischemia, medical therapy is directed at decreasing the resting myocardial oxygen demand. This is accomplished, in part, by bed rest, sedation and oxygen therapy.

The mainstay of medical therapy is beta blockade with propranolol (Inderal), starting at a dose of 20 mg. q. 6 hrs. In addition to the beta blockers, long-acting nitrates are used. Here, the physician may use either oral isosorbide dinitrate (Isordil) or a nitroglycerin paste, starting with application over one square inch every four to six hours. Additional medical therapy which is recommended by some, but not others, is anticoagulation with heparin. The evidence for this is not very strong and, as a result, many centers do not anticoagulate their patients with unstable angina pectoris. The same comments apply to the use of agents which decrease platelet adhesiveness.

The goal of the medical therapy is to maintain the patient pain-free while in the hospital. After therapy is initiated, if pain continues to occur, the dose of propranolol is increased up to a total of 320 to 400 mg. per day. If the patient has not responded by that time to beta blockade, he generally will not respond to further increments of this agent.

Total management of patients with unstable angina pectoris then entails "cooling them down" medically for one to two weeks. These patients should undergo cardiac catheterization with coronary angiography prior to discharge for the following reasons:

a. About 10 per cent have normal coronary arteries.
b. About 10 per cent have significant main left coronary artery lesions.
c. These patients have a higher risk of death and infarction in the year after onset of their symptoms. In published reports to date, approximately one-third of the patients assigned to chronic medical management subsequently have had to undergo coronary artery bypass surgery because of unresponsiveness of pain to medical therapy.[13]

As with main left coronary artery lesions, these patients should have cardiac catheterization performed with cardiovascular-surgery standby. After the cardiac catheterization has been completed, a decision regarding the advisability of coronary artery bypass surgery can be made on an elective basis.

### Chronic Angina Pectoris

The advisability of recommending aorto-coronary saphenous vein bypass in patients with chronic angina pectoris is the area of greatest controversy. Most will agree that successful bypass surgery will effect symptomatic improvement in approximately 80 per cent of patients suffering from angina pectoris. It is also possible to demonstrate improved exercise performance after coronary artery bypass procedures in approximately 50 per cent of cases. However, no significant changes are demonstrated in most cases in the left ventricular end diastolic pressure, the end diastolic volume, the end systolic volume or the ejection fraction. Therefore, while there is symptomatic improvement in these patients, successful bypass surgery cannot be shown con-

sistently to improve left ventricular function or performance in chronic angina.

A critical question is whether successful coronary artery surgery decreases the incidence of sudden death or prevents major cardiac events in the operated patients versus those who are managed medically. The Veterans Administration cooperative study, which is well known to most physicians, showed no difference in survival at 21 months or 36 months in patients with chronic angina pectoris treated medically or surgically—87 per cent and 88 per cent survival, respectively, at three years.[15] This study specifically excluded patients with main left coronary artery lesions and patients with unstable angina pectoris.

There have been many objections raised to this VA Hospital cooperative study, such as the fact that there was an unacceptably high operative mortality rate after 30 days of 5.6 per cent, and a graft patency rate of only 69 per cent for all grafts at one year. However, a more recent study involving a smaller number of cases showed comparable results; that is, coronary artery bypass operations for stable, disabling angina pectoris resulted in no difference in major cardiac events after three years in medical versus surgically-managed patients. The likelihood of death and myocardial infarction was unchanged by operation.[16] The conclusion of this latter study is that there is no basis for coronary bypass procedures in asymptomatic patients for preventive reasons.

### Preventive Surgery Unsupported

A critical portion of the myocardium is supplied by the left anterior descending branch of the left coronary artery, that is, the anterior wall of the left ventricle as well as much of the interventricular septum. It has therefore been proposed that patients with high-grade obstructive lesions in the proximal portion of this artery undergo bypass procedures to prevent future myocardial infarction. However, reported results on patients with proximal left anterior descending lesions who were treated medically versus surgically show that there was actually an increased incidence of late death and late myocardial infarction in the surgical group.[17]

The surgical patients, however, had a greater percentage that were free of angina and a somewhat improved exercise performance. It would appear that there is no data at this time to support the contention that coronary artery bypass operation should be used to prevent myocardial infarction or sudden death in patients with high-grade stenosis of the proximal left anterior descending branch of the left coronary artery.

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# *A message from . . .*

# *The President*

## THE HEALTH PLANNING CHALLENGE

A year ago, the Medical Association leadership made a strong plea to its membership to get involved in the statewide health planning program developed under provisions of 1974 federal legislation.

Specifically, physicians were urged to become familiar with the West Virginia Health Systems Agency, Inc., and the Health Systems Plan it was developing. There simply was insufficient understanding of the planning process when the initial plan was put together last Spring.

Response of physicians over the last several months has been highly encouraging. Not only have they become more involved at the local, or regional level—but they also have played key roles on task forces set up by the HSA's Plan Development Committee.

Now, a rather thorough revision of the initial HSP is in its final stages. There still are serious questions about parts of the plan, and whether the process it represents is one which will really work to the advantage of Americans from the standpoint of availability and quality of care.

The fact remains, however, that you, the physicians, are the ones most knowledgeable about health and medical care. Your input into health planning must continue to grow, in substantial measure. Indications at the moment are that you can meet this challenge.

Robert D. Hess MD.

ROBERT D. HESS, M. D., *President*

The West Virginia Medical Journal

# Editorials

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**MARIJUANA**

Early this year the National Broadcasting Company put on a special show called "Reading, Writing and Reefer." This writer missed the show but caught a column in a Charleston newspaper describing the show and commending its producers for publicizing information which, if true, would definitely set back the movement by press and TV newspeople to encourage the legalization of the distribution and use of "grass." It has been apparent for a long time that many prominent individuals and groups, including the media, consistently have declared marijuana to be no more harmful than alcohol and maybe not as bad. Corollary to that assertion has been the demand that the use of marijuana be legalized and that at the very least its distribution and use be decriminalized.

Now it seems that every time a scientific study appears that demythologizes the idea of the harmlessness of pot, the reports are limited to a five-line item on the back page of Section M of the paper—if indeed it is acknowledged at all. Consequently, our children have had little or no chance to learn about the rapidly mounting evidence of physical and psychological damage resulting from the drug's use and, as suggested in NBC's film, they won't even believe it! The statements of Mary Tyler Moore, as reported in the newspaper column, to the effect that she and her friends chug a little lug of pot from time to time and that she sees no harm in it, further insulate the minds of the children against acceptance of "bad news" about marijuana.

It is astounding that marijuana trafficking has reached the multi-billion dollar status it currently enjoys, and that the coffers of the syndicates and racketeers continue to be lined with profits from this drug that is doing such deadly harm to our children—and yet all we can read in the press are arguments for its legalization! Child abuse? Abortion? Women's lib? You name it, and you can get a mob to whoop it up any time before the TV cameras. But the terrible effects of marijuana on our kids? Forget it.

There's much to be said and written on the subject. But uppermost in this writer's mind is the question: What malignant influence permeates our society and makes "responsible" sectors such as our communications media ignore so completely the increasingly proved threat that "pot" poses to the future of our children? What can concerned people do? One thing is to try to get across to the youngsters the truth that can't be found in their daily contacts with the media. In at least one West Virginia county, service clubs are going together to finance the distribution of the NBC film to all the county schools in the hope that at least some of the eight-year-olds and up will see and believe. So what are you going to do?

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**PROMISCUITY**

Doctors are consulted more and more often in recent years about contraception, abortion, venereal disease, sexual feelings and performance, and other items related to sexual activity. Everyone recognizes the increasing tendency during the past decade or so of responsible society members to deal more leniently and permissively with young people with respect to matters formerly considered within the moral realm—the activities of many of us in our young days we felt were "wrong," and not comfortably bandied about in general conversation.

With the increasing acceptance of the "The New Morality" which, by and large, means freedom to do whatever feels good, by intellectually-responsible people has come a burgeoning of social ills. As physicians, we see many of the sad results of promiscuity among the ailments for which we are consulted. As observers of modern society in general, we see the wider effects of the continuing replacement of moral concepts by amoral—or "non-moral"—attitudes.

Some people, including doctors, feel that the physician's responsibility to his young patients ends with the prescription of requested prophylactic or therapeutic measures. Such doctors see

their duty to be the prevention of pregnancy and venereal disease, and "since they're going to get what they want anyhow they might as well get it here." Besides, they reason, it isn't the role of the physician to act *in loco parentis* to 12-year-olds-and-up who are "sexually active."

Likewise, when the matter of "unwanted pregnancy" comes up, who can deny the undesirability of unwanted children? Much better to get an abortion and put the whole thing behind us; what's one more abortion when we have had three million or so done legally since the Supreme Court passed its own private law on abortions? And so on and on.

On the other hand, there is a considerable body of opinion that challenges those conclusions. Some physicians believe that permissiveness begets promiscuity, and that the buck should stop right in the physician's office while he takes some time and trouble to discuss with his young patients some of the contrary opinions and the reasoning behind them. By and large, youngsters no longer have the chance or desire to hear the other side. As in the case of so many issues today, the things they see, read and hear are so biased in favor of The New Morality that the existence of responsible opinion to the contrary has little credence for them.

Our patients are entitled to know as much as we can tell them about venereal diseases' increasing resistance to treatment; "new" VD—which is not actually new but occurring with increasing frequency—such as herpetic genital infection and its possible relation to later-occurring neoplastic disease; Chlamydial vaginitis and urethritis with ophthalmic and pneumonic disease in the newborn.

We all know the shopping list of venereal afflictions and their complications. Who knows better than the doctor the sexual disabilities, the results of scarring in the GU system, and the psychological scars that are apparent mostly after a few years have passed.

It may seem easy to pass the buck to the social worker or clergyman after the unspoken future becomes the present reality, and it's too late to go back and do it again. It's certainly quicker and more comfortable for the time to give the young person the OCs she requests and a pat on the back before hurrying on to the next patient. But if the family doctor doesn't give the young and inexperienced patient the benefit of his knowledge and acquired wisdom—who will?

**A COMMON CAUSE**

Last November, an important American said in a speech deploring federal over-regulation and "Big Brother Government:" "Will our people . . . be tempted by 'quick cures' to major problems, through government action on symptoms . . . ?"

The speaker continued, "A majority of Americans believes the cost of regulation outweighs its benefits. A majority also believes government has become too paternal in trying to protect people from their own actions or inactions . . .

"Our challenge then is to recognize this new public mood as an opportunity to rebuild American faith in the free market principles that are the source of the strength and durability of the American way of life."

The speaker was William B. Johnson Chairman and Chief Executive Officer of a large conglomerate, IC Industries, Inc. What he said reflects the identity of interest—including public interest—between medicine and business.

A startling example of government self-interest versus medicine, industry (specifically, the pharmaceutical) and the public was HEW's January firing of Norman Latker as its chief patent counsel after 22 years of federal service.

Latker had testified before Congress that HEW was delaying the release of potentially life-saving drugs.

The AMA also has deplored the delays in the approval and distribution of potentially beneficial drugs.

Drug regulation is one of the key issues faced by the new Congress. Another that affects medicine, industry and the public is health care cost containment—with the threat of federal controls that could ultimately result in rationing of care.

Cost containment is an area in which medicine and industry have been cooperating, and must cooperate further. Industry was represented on the AMA-sponsored National Commission on the Cost of Medical Care, which (in the spirit of Mr. Johnson's "free market principles") stressed marketplace choice in health coverage. Industry also has an important role in the Voluntary Effort to curb the cost rise. And, AMA representatives have been talking to corporate boards of trustees on the cost problem and the profession's approaches.

Doctors in each state and locality should tell business (and the public) what our federation is doing about costs and other concerns—and invite joint voluntary action as opposed to federal hyperactivity.—*Guest Editorial from the American Medical Association.*

# Our Readers Speak

## Desires To Correct 'Inaccuracies'

I should like to make a few comments regarding the interesting article by Dr. Arthur N. Ward in the February issue of the *Journal*, entitled "Legionnaire's Disease—An Allergen Theory." The purpose of this letter is not to dispute Doctor Ward's basic concepts, but to correct what I feel are a few relatively minor inaccuracies in the Addendum to the article. Doctor Ward states that it is "highly unusual" for an infectious organism to not demonstrate secondary spread, i.e., person-to-person spread. I believe there are many good examples of diseases which are generally accepted to be very infectious and virulent which only rarely, if ever, are spread from person to person. Examples of such diseases are histoplasmosis, Q fever and malaria.

The fact that the disease seems to be more common in VA hospitals may have absolutely nothing to do with the military background of the patients in these hospitals. I think a much more plausible explanation is that patients in a VA hospital simply are older, a high percentage of them tend to be heavy smokers, and, unfortunately, a large number of them are alcoholics. All of these factors are known to decrease host-resistance to infections.

### Temperatures for Growth

Doctor Ward states that *Legionella* is thought to grow best at 35° C., and states that this is unusual for an infectious agent, which tends to grow better at 37° C. There are also plenty of examples of infectious agents which grow better at temperatures lower than 37° C., the two best probably being rhinovirus, which grows best at 33° C., and very poorly at 37° C., and influenza virus, which grows best at 36° C., and less well at 37° C.

The final point which I think should be emphasized with respect to an infectious versus an immunologic etiology for the disease is the striking finding that antibiotics seem to be beneficial and, in at least the original studies, patients given corticosteroids had the highest mortality rate. Both of these factors would be very much against an immunologic etiology, and in favor of an infectious one.

None of this is to detract from Doctor Ward's very thoughtful presentation.

Robert H. Waldman, M. D.
Professor and Chairman of Medicine
West Virginia University School of Medicine
Morgantown 26506

## Male Chauvinism Again Charged

You did it again!

In your March, 1979, reply to Dr. Ronica Kluge, male chauvinism again reared its ugly head. You "cavalierly" referred to Doctor Kluge as a cavalier. According to my sources, a cavalier is (1) a horse*man;* knight, (2) a courtly or dashing gentle*man*. After seeing Doctor Kluge's photograph in the same issue, it is obvious that she is by no stretch of the imagination a cavalier.

A. M. Valentine, M. D.
The Wheeling Clinic
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## Asks Institute To Help

In Doctor [Harry S., Jr.] Weeks' letter to the Editor captioned "Quality Control Not Mentioned" [March, 1979], he decried "yet another level of care without guaranteeing the citizens of West Virginia that the care given meets commonly acceptable standards," and further stated, "recent letters received from practicing physicians indicate that some of the rural primary care clinics established in West Virginia do provide an inferior level of medical care."

While quality assurance was only implied in clinic development by the licensure of physicians practicing in that setting, quality control was recently mandated by Rural Health Initiative directives for all government-sponsored rural clinics. If the West Virginia Medical Institute will help with the implementation of this directive, this will provide the Institute with the necessary experience to provide "Quality Control" in all practice settings.

Charles D. Holland
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## Cut In Lab Tests 'Commendable'

I have been a practicing pathologist in our state for 30 years. During this time, in the various committees on which I have served, members of the staff have often questioned the need for the ever increasing volume of laboratory testing, of pulmonary gas studies, of electrocardiograms, and of certain radiological procedures. As a concerned pathologist, I was alarmed. I feel certain that similar discussions were conducted in other staff meetings in other hospitals, but like us, no action was ever taken.

The current efforts by Blue Shield-Blue Cross to bring down the volume, and thus the costs, of laboratory testing are commendable and long overdue. It is perhaps unfortunate that the medical profession did not originate the idea.

For the past many decades, I have watched the increase in the number, in the complexity, and in the costs, of tests required on new admissions to the hospital. In the early years, the College of American Pathologists, and later the accreditation commission, recommended that a basic syphilis serology, a urinalysis, and a basic hematology test be performed on all new admissions. Over the years, and in almost every hospital, additional testing was added so that now the financial burdens were materially increased.

### Underwrite Other Costs

Considering that laboratory testing constitutes about 20 per cent of all medical costs, one can easily see that any decrease in these costs would be reflected by an overall decrease in all medical costs. Certainly, insurance companies and government agencies are interested in reducing costs and have already taken steps to gain some control over the situation. I still would have liked to see the doctors and the hospitals take the lead in this project.

It is a well-known fact that hospitals use the excess funds generated by hospital services such as laboratory, radiology, etc., to underwrite other hospital costs. They point out that the loss of these funds would result in increased charges elsewhere. Somehow this type of argument doesn't make good moral, good economic, or good accounting sense. It is comparable to the sale of a car without tires, power steering, power brakes, etc.—and we are all familiar with this type of situation.

### Little Knowledge of Costs

It is also a well-known fact that doctors have very little knowledge of the costs of hospital services. I can understand this for the same reason that most individuals (mostly males, and that would include most doctors) have little knowledge of the cost of a loaf of bread. Since doctors are being blamed in good measure for the rise in hospital costs and have to bear the brunt of bad publicity, then it might be a good idea to become knowledgeable and to put the shoe on the proper foot.

Finally, we have heard that defensive medicine is necessary to cut down the number of malpractice suits. I abhor this type of reasoning, even if there is a grain of truth in it. After all, why stop at 12 tests—why not 20, 50, or 100? Where will it end? I contend that all testing should be justified on the patient's chart; a good history, a proper physical, and necessary consultation will obviate the need for shotgun medical practices.

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# GENERAL NEWS

## AMA President To Speak At Annual Meeting

Dr. Hoyt D. Gardner of Louisville, Kentucky, currently President Elect of the American Medical Association, tentatively has accepted an invitation to speak during the 112th Annual Meeting of the West Virginia State Medical Association August 22-25 at the Greenbrier in White Sulphur Springs.

The announcement was made by Dr. Arthur A. Abplanalp of Charleston, Chairman of the Program Committee, who noted that Doctor Gardner's acceptance of the invitation was contingent upon other demands which might develop at the time of the meeting.

Doctor Gardner, who will be installed as AMA President during the Summer Meeting of the AMA House of Delegates July 21-26 in Chicago, is scheduled to address the first session of the House of Delegates on Wednesday afternoon, August 22.

A general surgeon, Doctor Gardner was elected to a three-year term on the AMA's Board of Trustees at its 1974 Annual Convention in Chicago and elected President Elect in June, 1978.

Born in Paragould, Arkansas, Doctor Gardner earned his M. D. degree at the University of Louisville in 1950. He served his internship at Receiving Hospital in Detroit and completed a four-year surgical residency at Detroit's Henry Ford Hospital in 1957. He has been in private practice in Louisville since completing his residency.

Doctor Gardner is a Past Chairman of the University of Louisville Board of Trustees, to which he was appointed in 1970 by Governor Louie B. Nunn; a Past Chairman of the Louisville and Jefferson County Board of Health, and a Past President of the Kentucky Medical Association and the Jefferson County Medical Society.

### Interest in Politics

He long has been interested in medical-health legislation and the field of politics. Prior to his election to the AMA's Board of Trustees, Doctor Gardner had been a member of the AMA's Council on Legislation.

Doctor Gardner is a Past Chairman and Secretary-Treasurer of the Board of Directors of the American Medical Political Action Committee (AMPAC), a Past Chairman of the Kentucky Educational Medical Action Committee, and has served on the National Legislative Affairs Committee of the Kentucky Medical Association. He has been a member of the Kentucky Republican State Central Committee for many years.

Doctor Gardner is Clinical Assistant Professor of Surgery at the University of Louisville, a Diplomate of the American Board of Surgery, and a Fellow of the American College of Surgeons.

He was a medical officer with the Air Force during the Korean conflict, and also served in the Navy during World War II in the Pacific.

Doctor Gardner's principal hobby is collecting first editions of 19th Century American authors. He has amassed a sizeable collection, including

**Hoyt D. Gardner, M. D.**

all of Oliver Wendell Holmes' work and all except one volume of Mark Twain's literature.

He is married to the former Rose Brakmeier of Louisville. The Gardners have three sons, Hoyt, Jr., Thomas and Nicholas.

#### Drug Reactions, Interactions

As announced previously, a "Symposium on Drug Reactions and Interactions" is scheduled as the first general session to be held following 9 A. M. opening exercises on Thursday. The speakers and their topics will be:

"Perspectives of Clinical Problems with Drugs"—Leighton E. Cluff, M. D., Vice President, The Robert Wood Johnson Foundation, Princeton, New Jersey; "Drug Levels: Fact and Fancy"—W. Leigh Thompson, M. D., Ph. D., Co-Director of Clinical Pharmacology and Critical Care Medicine, University Hospitals of Cleveland, and "Psychotropic Drug Interactions"—Frank J. Ayd, Jr., M. D., Director of Professional Education and Research, Taylor Manor Hospital, Baltimore, and Professor of Psychiatry, West Virginia University Medical Center, Charleston Division.

Papers on joint replacement and pain will be presented by two of the speakers during the second general session at 9:30 A. M. on Friday. Eric L. Radin, M. D., Associate Professor of Orthopedic Surgery at Harvard Medical School, will speak on "Update on Total Joint Replacement," while Robert Bettinger, M. D., will discuss "The Pain Clinic: Unique Approach to an Old Problem." Doctor Bettinger is Assistant Professor of Anesthesiology, WVU Medical Center, Morgantown.

Doctor Radin also will address the State Medical Association's Section on Orthopedic Surgery at its meeting Friday afternoon at the Greenbrier. His subject will be "Treatment of Osteonecrosis of the Femoral Head in the Young Adult."

#### Liver Disease Symposium

A "Symposium on Liver Disease," also as announced previously, will be held as the third general session Saturday morning. The speakers will include Harry H. LeVeen, M. D., Chief, Surgical Service, Veterans Administration Hospital, Brooklyn, New York; and Professor of Surgery, State University of New York, whose subject will be "Surgical Treatment of Ascites," and Saul Krugman, M. D., Professor of Pediatrics, New York University Medical Center, New York City, "Viral Hepatitis: New Developments."

Annual Meeting activities will get underway with a 2 P. M. meeting of the Association's Executive Committee on Tuesday, August 21; the usual pre-convention meeting of the Council at 9:30 A. M. on Wednesday, and the opening House session at 2:30 P. M. on Wednesday.

#### Other Convention Information

The general Convention format once again will provide opportunities for breakfast, luncheon and other meetings, of a scientific and/or business nature, of the various sections and specialty organizations affiliated with the Medical Association. It is anticipated that most of these again will be scheduled on Friday, August 24.

Plans also call for the usual President's Reception on Wednesday evening, August 22, and the Saturday evening reception for new officers. The latter will follow the second and final House of Delegates session at 2:30 P. M. on Saturday which will bring the inauguration of Dr. Stephen D. Ward of Wheeling as President to succeed Dr. Robert D. Hess of Clarksburg.

More specific information relative to other convention speakers will be provided in upcoming issues of *The Journal.*

Serving on the Program Committee with Doctor Abplanalp are Drs. Marshall J. Carper, South Charleston; Cordell de la Pena, Clarksburg; George J. Hill II, Huntington; Robert H. Waldman, Morgantown, and Doctor Ward.

#### Early Reservations Advised

Meanwhile, reservation forms provided by the Greenbrier have been distributed to all Association members, and those planning to attend the Annual Meeting are encouraged to give them their earliest possible attention.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. D. Sheffer Clark of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's Convention.

## Physicians Certified

Three state physicians who recently have been certified by their specialty organizations have been reported to the *Journal.*

Dr. Willard S. Harris of Morgantown has been named a Fellow of the American College of Cardiology; Dr. Larry C. Rogers of Petersburg has become a Diplomat of the American Board of Family Practice, and Dr. Jose C. Gomez of Elkins has been certified by the American Board of Orthopedic Surgery and is now a Diplomate of the Board.

# Medico-Legal

*Editor's Note:*

*The following material was prepared by Richard D. Lindsay, M. D., J. D., a 1974 graduate of West Virginia University School of Medicine and a 1978 graduate of the West Virginia University School of Law. He is a member of the American College of Emergency Physicians, West Virginia State Medical Association, and the West Virginia State Bar Association. He currently is practicing law and emergency medicine in Charleston.*

## Abandonment: Basic Concepts

The American Medical Association's *Principles of Medical Ethics* state that "the principal objective of the medical profession is to render service to humanity with full respect for the dignity of man. Physicians should merit the confidence of patients entrusted to their care, rendering to each a full measure of service and devotion."[1]

Although ethical considerations should be more than enough to keep a physician attending to the medical needs of his patient, the law, itself, has required a continuation of this relationship when physicians feel an impulse to respond to their pocketbooks rather than to the ideals of their calling.

It has been established in the courts of law that if an individual has a doctor treat him, that doctor impliedly agrees to take care of him throughout his illness, or until the doctor's services are ended at the request of the patient. A physician employed to take care of a particular illness, in the absence of a special agreement or dismissal, is employed for the duration of that illness.[2,3]

### Substitute Required

A doctor cannot leave town and may not refuse care without providing a substitute. This substitute, additionally, must be a reasonable one in that his training and expertise must be sufficient to deal with the problem the patient has. The physician's substitute must also be acceptable to the patient. However, the patient cannot unreasonably refuse to accept a substitute.

In the usual case with no ongoing care or treatment, a physician has a right to withdraw from the future needs of his patient; but "once having undertaken a case, the physician should not neglect the patient, nor should be withdraw from the case without giving notice to the patient, his relatives, or his responsible friends, sufficiently long in advance of withdrawal to allow him to secure another medical attendant."[4]

It is reasonable to expect that one will work only as long as he is being paid. This is a normal human reaction and response with which we are all familiar, and that most of us practice daily. When money is owed us, there are ways to get payment from a debtor which the law sanctions; but the law will not let a doctor punish a delinquent patient by withholding treatment just as it will not countenance punishment imposed by any individual upon another outside of the legal system.

### Moral, Legal Obligations

A physician holds himself out by reason of his training, professional heritage and prestige as not an ordinary job holder. He, along with other professionals, is more than compensated for the usual services monetarily, and along with this actual compensation comes a moral obligation and a legal obligation. A physician does not have the moral right to withhold his skill merely because of one's inability to pay for that skill. Once he has undertaken the care of an individual, he does not have the legal right to withhold his skill merely because of an inability to pay for that skill.

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1. "Principles of Medical Ethics of the American Medical Association," in *Opinions and Reports of the Judicial Council*, Section 1, page 4, American Medical Association, Chicago (1977).

2. HOFFMAN v. ROGERS 22 California Appeals 3rd 655, 99 California Reporter, 455 (1972).

3. LAWSON v. CONAWAY, 37 WV 159 16 SE 564 (1892).

4. *Opinions and Reports of the Judicial Council.* 5.50, page 25, American Medical Association, Chicago (1977).

## Cancer Registry Workshop In Charleston

A one-day Cancer Registry Workshop will be held from 8 A. M. to 5 P. M. on May 11 in Charleston at the Holiday Inn, Broad and Washington Streets.

The workshop objectives are to provide an opportunity to discuss cancer registry and cancer program problems, and to extend aid and training to cancer registry secretaries.

Physicians participating will include Drs. David B. Gray, David P. Lee, Bobby Lee Caldwell and J. Battle Haslam, all of Charleston.

Sponsors are American Cancer Society, West Virginia Division; American College of Surgeons, Commission on Cancer, West Virginia Tumor Registrars Society, and West Virginia Hospital Association.

## Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1979, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

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| May 10-11 | Morgantown | Health Officers' Conference |
| May 18-19 | Morgantown | Internal Medicine Day |
| June 2 | Charleston | 6th Annual Wildwater Surgery Conference |
| June 8 | Charleston | 6th Annual Alumni Education Day |
| June 9 | Morgantown | Anesthesia Update |

**Visiting Professors**

(Morgantown)

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|---|---|
| May 3-4 | Gloria E. Sarto, M. D., Professor and Vice-Chairperson, Department of Obstetrics and Gynecology, Northwestern University School of Medicine, "Pre-natal Detection of Inherited Disorders" and "Primary Amenorrhea; Gonadal Dysgenesis" |
| June 7-8 | Mortimer Rosen, M. D., Professor, Department of Obstetrics and Gynecology, Case Western Reserve University, "Antenatal Fetal Assessment: Electronic Monitoring of the Fetus and the Fetal Brain" and "Medicine and Anesthesia in Pregnancy: A Clinician's Guide" |
| June 8 | David J. Stewart, M. B., Anaesthetist-in-Chief, The Hospital for Sick Children, Toronto, "Anaesthesia for Cardio-Vascular Surgery in Children" |

## Doctor Bateman Chairman Of AMA Workshop

Dr. Mildred Mitchell-Bateman of Huntington will serve as Chairman of an American Medical Association workshop on "Physicians and Chronic Mental Patients: Potentials for Community-Based Care" to be held May 10-11 in Chicago.

Doctor Bateman, former Director of the State Department of Mental Health, is Chairman of the Department of Psychiatry at Marshall University School of Medicine.

The purpose of the workshop is to identify opportunities in undergraduate, graduate and continuing medical education to enhance the awareness and ability of physicians to give adequate care to chronic mental patients.

(For additional information on the workshop, see article in the April issue of the *Journal*, Page 112.)

**Dr. Israel M. Kruger of Logan, right, was presented the 1979 "Mr. Doc" award for his contributions to the practice of medicine by the West Virginia Chapter, American Academy of Family Physicians, during the chapter's annual scientific assembly held recently in Charleston. Above, Dr. Thomas P. Long of Man presents the award to Doctor Kruger. Doctor Long was installed as President of the chapter during the meeting.**

# Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Understanding Arthritis and Rheumatism* (paperback), by Malcolm I. V. Jayson, M. D., and Allan St. J. Dixon, M. D. 234 pages. Price $1.75. Dell Publishing Company, Inc., New York, New York 10017. 1974.

*Principles of Clinical Electrocardiography, 10th Edition*, by Mervin J. Goldman, M. D. 415 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Current Medical Diagnosis and Treatment, 1979*, by Marcus A. Krupp, M. D., and Milton J. Chatton, M. D. 1,130 pages. Price $18. Lange Medical Publications, Los Altos, California 94022. 1979.

*Physician's Handbook, 19th Edition*, by Marcus A. Krupp, M. D.; Norman J. Sweet, M. D.; Ernest Jawetz, M. D., Ph. D.; Edward G. Biglieri, M. D.; Robert L. Roe, M. D., and Carlos A. Camargo, M. D. 758 pages. Price $9. Lange Medical Publications, Los Altos, California 94022. 1979.

## MECO Student Project Looks For Training Sites

The Medical Education and Community Orientation (MECO) Project of the American Medical Student Association is looking for physicians, clinics and community hospitals willing to provide a summer, community-based experience for pre-clinical students.

The project, oriented toward primary care, gives students an early opportunity to experience the practice of medicine.

Students usually participate for four to 10 weeks, with a small stipend provided by local sources (hospitals, clinics, physicians and community groups). The arrangements can be made on an individual basis.

For more information, contact Frances Stewart, West Virginia MECO State Project Director, Box 1161, West Virginia University Medical Center, Morgantown 26506.

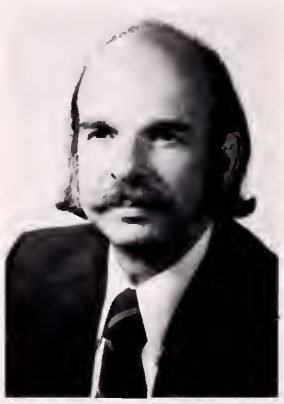
MECO, Ms. Stewart said, began in 1969, and has placed students in 35 states. Students in the past have rotated through both the clinical and nonclinical areas of hospitals and clinics, observed and participated in patient care in physicians' offices, and learned first-hand about practice management and other aspects of the community's health care system.

According to Ms. Stewart, the MECO project offers communities an excellent way to interest students in returning there to practice, stating that 80 per cent of former student participants expressed interest in returning to their MECO communities.

She said preceptors also have been enthusiastic about the project, adding that they may receive credit for serving as preceptors through the American Academy of Family Physicians and the American Medical Association.

## Dr. Stanley R. Shane New ACP Governor For State

Dr. Stanley R. Shane of Morgantown has assumed the post of Governor for West Virginia, American College of Physicians. Doctor Shane is Professor and Associate Chairman of the Department of Medicine at West Virginia University School of Medicine.



Stanley R. Shane, M. D.

Elected by his colleagues in internal medicine in the state, Doctor Shane served as Governor Elect for one year before becoming Governor during the College's 60th annual session held in March in San Francisco. His term of office is four years.

Doctor Shane, a member of the WVU faculty since 1965, is Chairman of the Division of Endocrinology and Metabolism.

A graduate of the University of Kansas School of Medicine where he was elected to Alpha Omega Alpha honor medical society, he took postgraduate training at Los Angeles County General Hospital, Kansas and WVU.

## Association Scholarship Goes To Mark R. Bennett

Mark R. Bennett of Bruceton Mills has been named recipient of a 1978 State Medical Association scholarship at West Virginia University School of Medicine in the place of James D. Clay of Belle, who is no longer enrolled in the medical school. The announcement was made by Dr. John Mark Moore of Wheeling, Chairman of the Association's Medical Scholarships Committee.

Mark R. Bennett

Bennett, who entered the medical school last fall, will receive the balance of the four-year scholarship previously held by Clay.

The son of Mr. and Mrs. B. F. Bennett, Jr., of Bruceton Mills, he holds an A. B. degree in chemistry from WVU.

The four scholarship recipients named annually by the Association receive grants of $1,250 for each of their four years in medical school.

The other three 1978 recipients are Marvin L. Sponaugle, Jr., of Franklin and Anthony Lee Burke of Charleston, both WVU students, and Darrell William Jordan of Ona, the first Marshall University School of Medicine enrollee to receive an Association scholarship.

Under provisions of their scholarship agreement, recipients must agree to practice in West Virginia for four years following graduation and completion of any postgraduate training and/or military obligations.

## National Cancer Institute Offers "Quit Smoking" Material

Cigarette smoking remains the single greatest preventable cause of death and disability in the United States today, the National Cancer Institute has reiterated. In 1977, smoking was a major factor in an estimated 220,000 deaths from heart disease; 78,000 lung cancer deaths; and 22,000 deaths from other cancers, including cancers of the mouth, esophagus, pancreas, kidney and bladder.

Forty per cent of all cancers in males, and a rapidly increasing percentage in females, are caused by smoking. Eighty-five per cent of deaths from bronchitis, emphysema and other lung diseases could be prevented if people stopped smoking, the Institute has contended.

Fortunately, a recent study has shown that nine out of 10 smokers want to quit. The large majority indicate they would quit if their physicians told them to. And studies confirm that many smokers have quit upon advice from their physicians. However, about two-thirds of smokers report that they have never received advice on quitting from their physician, Institute spokesmen have emphasized.

To help physicians encourage quitting by their patients, the Institute has developed the "Helping Smokers Quit" kit. The kit contains enough materials to assist 50 smokers who want to quit.

"The kit can make a major contribution to your efforts to prevent cancer and other chronic diseases among your patients. The kit is being provided free of charge to all physicians who want to participate in this important preventive health effort," the Institute has explained.

The kit may be ordered from this address: Helping Smokers Quit Kit, Dept. K-77, National Cancer Institute, Bethesda, Maryland 20205.

## 'Dial Access' Provides CME Recordings

Physicians can obtain specialized medical information through "Dial Access," a toll-free continuing medical education service co-sponsored by the Southern Medical Association and Emory University School of Medicine.

The toll-free number from West Virginia is 1-800-633-4560.

The calls are answered 24 hours a day, seven days a week. The physician tells the operator his name, profession and address, and then asks by number for the tape he wishes to hear. An eight to 10-minute recording is then played.

The physician also can request, free of charge, a monograph of the tape which is mailed to him immediately.

Free Dial Access catalogues may be ordered from: Southern Medical Association, 2601 Highland Avenue, Birmingham, Alabama 35205. Telephone (205) 323-4400.

The catalogues are available in the following fields: arthritis and rheumatology, cancer information, obstetrics and gynecology, infectious diseases, diabetes — summer, 1979; psychotherapeutics—summer, 1979, and pain—fall, 1979.

## Wildwater Surgical Conference In Charleston June 2

The "Sixth Wildwater Surgical Conference" will be held on Saturday, June 2, in Charleston by the Charleston Division/West Virginia University Medical Center and the Charleston Area Medical Center.

The conference site will be the WVU Medical Education Building at 3110 MacCorkle Avenue, S. E.

Registration will begin at 8 A. M., followed by a welcome from Dr. Thomas W. Mou, Dean of the Charleston Division/WVU; and remarks by the moderator, Warren Point, M. D., Assistant Dean for Clinical Affairs, and Professor and Chairman, Department of Medicine, WVU Charleston Division.

The scientific program will begin at 9:15 A. M. with a presentation on "Colon Surgery in Aged Patients" by Alvin L. Watne, M. D., Professor and Chairman of Surgery, WVU, Morgantown.

Other speakers and topics will include:

"Hematologic Indications for Splenectomy" —Charles G. Watson, M. D., Department of Surgery, University of Pittsburgh; "Management of Distal Occlusive Vascular Disease"—Marshall Webster, M. D., Department of Surgery, University of Pittsburgh; "Surgical Pancreatitis — Exercise in Frustration" — G. Robert Mason, M. D., Chairman, Department of Surgery, University of Maryland; "Crohn's Disease—Ulcerative Colitis"—Frank C. Wheelock, M. D., Assistant Clinical Professor, Harvard Medical School, and Visiting Surgeon, Massachusetts General Hospital, Boston;

"Management of Entero-Cutaneous Fistulae" —Victor Fazio, M. D., Department of Surgery, The Cleveland Clinic; "Male Impotence" — Drogo K. Montague, M. D., Department of Surgery, The Cleveland Clinic, and "Pancreatic Cancer, the Surgeon's Dilemma"—George L. Nardi, M. D., Professor of Surgery, Harvard Medical School, and Visiting Surgeon, Massachusetts Geneneral Hospital.

### CME Accreditation

The conference meets the criteria for four hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association—and also has been approved for .5 CEUs.

**Dr. Thomas P. Long of Man, right (first row), is congratulated by Dr. L. Dale Simmons of Clarksburg after assuming the office of President during the 27th Annual Scientific Assembly of the West Virginia Chapter, American Academy of Family Physicians, in Charleston March 30-April 1. Doctor Simmons is an Alternate Delegate to the AAFP. Some of the other chapter officers for 1979-1980 are, front row (from left), Dr. Asel P. Hatfield, Harrisville, Immediate Past President and now Chairman of the Board, and Thomas L. Ritz, Wheeling, Vice President. In the center is Dr. Robert D. Hess of Clarksburg, Secretary. In the back row, from left, are Dr. John L. Fullmer, Morgantown, President Elect; William B. Ferrell, Jr., Charleston, Executive Secretary, and Dr. Del Roy R. Davis, Kingwood, AAFP Delegate.**

The registration fee, which includes lunch, is $20 for physicians and $5 for allied health personnel. An additional fee of $5 will be charged for registrations after May 30.

For additional information, call the Office of Continuing Education at (304) 345-2600, ext. 242.

The conference also is sponsoring a Wildwater Expedition for a limited number of persons on New River, from Thurmond to Fayette Station, on Friday, June 1. The fee for the expedition is $45. For additional information and reservations, call (304) 348-5511.

## Medicaid To Be Under New Computer System

The West Virginia Department of Welfare recently awarded a contract to The Virginia Computer Company (TVCC) for the development of a Medicaid Management Information System (MMIS). TVCC will also process Medicaid claims for the State.

TVCC has been involved in MMIS development activities in the states of Virginia, Delaware, Maryland, Arizona, California, Florida, and in New York City. The system which TVCC proposes to transfer and adapt to West Virginia's needs has been operating in different varieties in Delaware, New York City, North Carolina, Florida and Virginia.

According to the Department of Welfare, the key benefits of the new system for the medical community are as follow:

—Improved control of all claims submitted with the capability of tracking all claims from time of submission to disposition

—Prompt processing and rapid payment of all approved claims

—Timely communications to physicians regarding the status of submitted claims and the reasons why claims are pending or denied by means of a periodic remittance statement

The new system for billing Medicaid requires the use of new invoices. TVCC will conduct training seminars in various geographical locations throughout the State so that physicians and appropriate members of their staffs will know how to complete correctly the new invoices prior to the actual conversion date.

Announcements were to be made of the schedule and locations of training seminars which will take place from mid-May through the month of June. Please watch closely for these announcements, the Department requested.

The new invoice which will be utilized by physicians in West Virginia has been used successfully in other states, said the Department.

## Lens Implant Course Scheduled In Bluefield May 25-26

Lectures, live surgery and workshops will comprise the Shearing Lens Implant Course to be held May 25-26 in Bluefield at the Blaydes Clinic and St. Luke's Hospital.

Physicians from six states will form the faculty and associate faculty for the course, which is sponsored by the Blaydes Foundation for Ophthalmic Research and Education, St. Luke's, and the West Virginia Academy of Ophthalmology and Otolaryngology.

The course is limited to 25 physicians, and the tuition is $495.

Drs. J. Elliott Blaydes and Juanedd Berry, both of Bluefield, will serve as course directors.

Considered as a part of the continuing education program of the Academy, the course meets the criteria for 16 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association.

### Doctors Kratz, Shearing On Faculty

Drs. Richard P. Kratz of Van Nuys, California, and Steven P. Shearing of Las Vegas, Nevada, will comprise the faculty.

Serving on the associate faculty will be Drs. Harry D. Arnold, Atlanta; John Justice, Jr., and Barrett P. Walker, Houston; Louis Katz, New York City; Paul J. Simel, Greensboro, North Carolina, and Barrie H. Thrasher, Atlanta.

The topics and speakers for Friday morning, May 25, will be:

"Advantages and Disadvantages of the Shearing Lens"—Doctor Shearing; "Comparison of Other Lenses"—Doctor Kratz; "Panel Discussion of Complications"—Doctors Arnold, Kratz, Shearing, Simel and Thrasher; "Theories and Techniques of Endothelial Micrography."—Doctor Walker; "The Techniques of Using A-Scan for Calculation of Intraocular Lens Power, and B-Scan for Diagnosis"—Doctor Justice;

"Extracapsular Technique — Phacoemulsion" —Doctors Kratz and Thrasher; "Planned Extracapsular Technique" — Doctor Arnold; "Postoperative Treatment"—Doctor Kratz, and "Films of Techniques"—Doctors Arnold, Kratz, Shearing, Simel and Thrasher.

### Live Surgery, Workshops

On Friday afternoon and Saturday morning, there will be live-surgery demonstrations at St. Luke's and workshops at Blaydes Clinic.

The workshops will include "Ultrasound," by Doctors Justice and Katz; "Endothelial Micro-

graphy," Doctor Walker; "Practice Insertion of Shearing Lens in McGhan Eyes," Doctors Arnold, Simel and Thrasher, and "Postoperative Patients Evaluation," Doctors Berry and Thrasher.

The course will conclude on Saturday following round-table discussions from 1 to 5 P. M.

For additional information, contact Doctor Blaydes at the Blaydes Foundation for Ophthalmic Research and Education, Woodland and Frederick Streets, Bluefield 24701. Telephone (304) 327-8128.

## State Anesthesiologists Meet In June

Four visiting speakers from three states and Canada will participate in the annual meeting of the West Virginia State Society of Anesthesiologists to be held Saturday, June 9, in Morgantown.

Moderating the meeting, which will be held at the Lakeview Inn and Country Club, will be Richard B. Knapp, M. D., Professor and Chairman, Department of Anesthesiology, West Virginia University School of Medicine.

"V/Q Abnormalities are the Commonest Cause of Hypoxia in Medicine" will be the subject of a talk by Azmy R. Boutros, M. D., Chairman, Division of Anesthesiology, Cleveland Clinic.

Other visiting speakers and their topics will be:

"Halothane and the Liver—Over 15 Years of Controversy"—William Forrest, Jr., M. D., Stanford (California) University School of Medicine; "Low Cardiac Output States: Pathophysiology and Management"—Demetrios Lappas, M. D., Department of Anesthesiology, Massachusetts General Hospital, Boston, and "Paediatric Outpatient Anesthesia" — D. J. Steward, M. B., Anaesthetist-in-Chief, The Hospital for Sick Children, Toronto.

WVU Department of Anesthesiology speakers and their topics will include:

"Who are Chronic Pain Patients?"—Robert Bettinger, M. D., Assistant Professor and Director of the WVU Pain Clinic; "Preoperative Evalution of Patients with Chronic Pulmonary Disease"—Terring Heironimus III, M. D., Professor and Director of Respiratory Therapy;

"Does the Perioperative Insertion of the Swan-Ganz Catheter Really Benefit the Pediatric Heart Patient?" — Michael Howie, M. D., Associate Professor, and "The Results of Four Years of Evaluation of Ketamine"—David Smith, Ph. D., Associate Professor and Director of the Anesthesiology Research Laboratory.

## Anemia, Poison Control Subjects For Pediatrics Meeting

Anemia, poison control and developmental dysfunction were among the subjects discussed at the recent spring meeting of the West Virginia Chapter, American Academy of Pediatrics in Parkersburg.

The faculty included Drs. Paul H. Dworkin, Assistant Professor of Pediatrics, West Virginia University Medical Center, Morgantown; George E. Pickett, State Health Director; Jean D. Ross, Associate Professor of Pediatrics, Charleston Division, WVU Medical Center, and Chief of Section of Pediatrics Hematology and Oncology, Charleston Area Medical Center;

John F. Tourville, Pharm. D., Assistant Professor of Pharmacy, Charleston Division, WVU; and Drs. Eberhard Mueller-Heubach, Assistant Professor of Obstetrics and Gynecology and Pediatrics, University of Pittsburgh, and J. R. Zuberhler, Clinical Professor of Pediatrics, University of Pittsburgh.

Also discussed during the meeting were maternal-fetal medicine and heart disease in children.

Dr. Herbert H. Pomerance of Charleston, chapter President, presided.

## Educational Materials Offered By Cancer Society

The following educational materials are available to physicians without charge by writing the American Cancer Society, West Virginia Division, Inc.:

"Acute Leukemia — Report 1974," a 20-minute, 16 mm., color film which explains the necessity for aggressive combination chemotherapy, together with supportive therapy to manage side effects and avoid infections, in order to achieve the long-term remissions possible today.

Available with the film are ACS publications "Leukemias & Lymphomas: Statistical and Epidemiological Information," by Edwin Silverberg, B. S.; and "Cancer Chemotherapeutic Agents," Irwin H. Krakoff, M. D.

The address for requesting the above is: American Cancer Society, West Virginia Divis-

ion, Inc., 240 Capitol Street, Suite 100, Charleston, West Virginia 25301.

Please allow two weeks for film and material requested.

## AMA Charges FTC Chairman With Prejudice

The American Medical Association charged in April that Michael Pertschuk, Chairman of the Federal Trade Commission, has "forsaken his responsibility of ultimately determining the merits of the charges against the AMA and has chosen instead to pursue the role of advocate."

The Association's attorneys moved that Chairman Pertschuk withdraw or be disqualified from any further participation in the challenge by the FTC to the position of the AMA on advertising by physicians. The Commission is currently hearing an appeal by the AMA against a ruling by FTC Administrative Judge Ernest Barnes that the Association's views on physician advertising are in violation of the Federal Trade Commission Act.

James H. Sammons, M. D., AMA Executive Vice President, said: "We are aware of the seriousness of our motion. But it has become obvious that Mr. Pertschuk has prejudged the case against the AMA, and has already decided that the Commission's actions against the AMA would keep health care costs down, raise quality and broaden consumer choice. We feel that such a conclusion is not only premature but contrary to evidence which we have presented."

### Cites Public Speeches

Doctor Sammons pointed out that in public speeches on three separate occasions Mr. Pertschuk has demonstrated his prejudice.

On February 22, 1979, nearly a month after respondents had filed their briefs in this case, Mr. Pertschuk said:

"Are we bound, then, to a closed circle of professionals identifying and adjudicating needs, professionals admitted to practice by professionals and self-policing by professionals? *I don't think so.* (Italics by AMA)."

On October 10, 1977, those sentiments of Mr. Pertschuk were foreshadowed by his testimony before Congress, during the period when the case was first being tried by Judge Barnes. Mr. Pertschuk said at that time:

"It seems appropriate, therefore, to consider whether there exists in the health care field today a proper mix of government regulation, competition and self-regulation. *I believe not.* (Italics by AMA)."

In reporting to the Consumer Assembly on January 19, 1978, Mr. Pertschuk said:

"You are entitled to hear . . . precisely what we've done, what we're doing and what we're planning to do to keep health costs down, raise quality and broaden consumer choices . . . We've issued complaints against the American Medical Association . . . "

### 'Prejudgment'

In the motion for the withdrawal or removal of Mr. Pertschuk from the FTC appeal proceedings, attorneys for the AMA said:

"Taken both individually and together, the public statements of Chairman Pertschuk are utterly inconsistent with 'the appearance of complete fairness.' They far exceed an objective recitation of fact or a press release alerting the public to suspected violations of the law. At the very least they represent the appearance of prejudgment of issues critical to this case."

## Patients Warned of Harmful Furosemide Tablets

The Food and Drug Administration recently warned patients who are taking the prescription diuretic furosemide that three manufacturers have illegally marketed tablets that may be ineffective and therefore harmful to patients who need the drug.

The FDA advises patients taking furosemide to be sure the name Hoechst is on the tablets. Hoechst, the only manufacturer with FDA approval to market furosemide, sells it under the trade name Lasix.

Patients taking furosemide tablets that do not have the Hoechst name on them should ask their pharmacist for a replacement. Patients who are unsure whether they have the Hoechst product should contact their pharmacists.

The three manufacturers that illegally marketed unapproved versions of the drug are Pharmadyne Laboratories, Hackensack, New Jersey; Camall Company, Washington, Michigan; and Superpharm Corporation, Central Islip, New York the FDA said. All have suspended marketing, but patients and pharmacies may still have these illegal tablets in their possession.

### Recall Asked

The FDA has asked the companies to recall remaining tablets from the market. Camall and Superpharm have agreed. Pharmadyne was to let the FDA know whether it intends to recall its product.

The Pharmadyne tablets, which are white, can be identified because the name of the company is impressed in capital letters on one side. The Camall and Superpharm tablets are colored off-white but have no names on them.

Diuretics like furosemide help eliminate fluids from the body. Furosemide may be taken by patients with heart disease, kidney disease, cirrhosis of the liver or high blood pressure.

While the illegal versions made by the three companies were distributed nationally, they are believed to represent only a small percentage of the furosemide on the market. Therefore, most patients taking furosemide are taking the FDA-approved Lasix.

Furosemide is one of many prescription diuretics approved by FDA; no other diuretics are involved in this action. The action affects only tablets of furosemide; other dosage forms are not affected.

The FDA recently received five reports of patients who became worse because Pharmadyne's version of the drug was not effective in removing fluid caused by their heart conditions.

The FDA has confirmed four of these reports.

Three of these patients were hospitalized as a consequence of taking the unapproved version of the drug. The fourth patient already was hospitalized but became seriously ill after taking it. Three of the four patients recovered after switching back to Lasix; the FDA does not have updated information on the fourth.

The FDA believes the likely cause of the problem is that the illegal versions of the drug may not be absorbed by the human body (i.e., be bioavailable) and therefore may not accomplish their intended therapeutic effect.

**Drugs Seized**

The FDA began legal action last fall to prevent sale of the illegal Pharmadyne product.

When the FDA learned that Pharmadyne was marketing furosemide without its approval, it began seizing the illegal drugs. Pharmadyne challenged FDA's seizure actions in court, however, and continued to distribute the drug. On March 14, the U. S. Court of Appeals for the Third Circuit in Philadelphia upheld the FDA's authority to seize the drugs.

Following this decision, on March 28, the FDA seized furosemide tablets valued at $250,000 at Pharmadyne's Hackensack plant. The FDA asked the three companies to recall the remaining stock from pharmacies, hospitals and doctors because recall is the most effective means of removing drugs from the market.

# *Medical Meetings*

May 2-5—W. Va. Chapter, ACS, White Sulphur Springs.

May 2-5—Va. Society of Ophthalmol. & Otolaryngol., Charlottesville.

May 9-13—Congress on Med. Education (AMA), Washington, D. C.

May 10-11—AMA Workshop on Chronic Mental Patients: Potentials for Community-Based Care, Chicago.

May 11—Cancer Registry Workshop, Charleston.

May 12-17—Ohio State Med. Assn., Columbus.

May 13-16—Am. Thoracic Society, Las Vegas.

May 13-17—Am. Urological Assn., New York.

May 24—Dept. of Pediatrics, CAMC (Guest Lecture Series), Charleston.

May 25-26—Shearing Lens Implant Course, Bluefield.

June 10-12—Am. Diabetes Assn., Los Angeles.

July 21-26—AMA Delegates Summer Meeting, Chicago.

**Aug. 22-25—112th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.**

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 6-8—National Breast Cancer Conference (Am. Cancer Society), New York City.

Sept. 12-16—Medical and Chirurgical Faculty of the State of Maryland, New Orleans.

Sept. 14-16—AMA Regional Meeting, Williamsburg, Va.

Sept. 21-23—Central Assn. of Obstetricians & Gynecologists, White Sulphur Springs.

Sept. 23-25—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Sept. 25-27—Kentucky Medical Association, Louisville.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-17—Indiana State Med. Assn., Indianapolis.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 22-26—ACS, Chicago.

Nov. 1-3—Pa. Med. Society, Camp Hill.

Nov. 1-4—Med. Society of Va., Hot Springs.

Nov. 4-7—Southern Med. Assn., Las Vegas.

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# Pseudotumor Of The Lung: A Benign Plasma Cell Granuloma

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*Pseudotumors of the plasma cell granuloma type are predominantly intraparenchymal in the lungs, and consist of benign proliferation of plasma cells, fibroblasts and collagen associated with areas of calcification or ossification. Most patients are asymptomatic and the lesions are discovered on routine chest x-rays. The majority of the cases are seen in the very young. Surgical removal brings about permanent cure. Knowledge of this pathological entity is of extreme importance to the pathologist doing frozen sections.*

A pseudotumor of the plasma cell granuloma variety may be defined as a localized, benign proliferation of plasma cells, fibroblasts and collagen in which areas of calcification or ossification may be present. They occur intraparenchymally in the lungs, around or in the air passages, occasionally in the mediastinum, or rarely in the lymph nodes of the thorax.

They can increase in size and are seen a great deal in the very young. Because of this, they create considerable confusion clinically, roentgenographically and histologically. The finding of these lesions on routine chest x-rays done for any reason invariably suggests neoplasia unless proven otherwise. Many of these cases come to light on routine chest x-rays before signs or symptoms develop. Radiographically, a distinction between a benign, unresolving process and a malignant process cannot always be made.

Because of the high probability of masses in the chest being malignant, exploratory thoracotomy is performed and a frozen is requested. The frozen sections, if properly interpreted, reveal a benign inflammatory rather than a malignant process and, therefore, require only regional resection.[1,2,3,4]

### Clinical History

This is the case of a 14-year-old, while female who was admitted to the United Hospital Center, Inc., Clarksburg, West Virginia, because of the increasing size of a mass in the right lower lung. The history dates back to 1966 when, at the age of four, an x-ray of the chest, done at the Balboa Naval Hospital in California, revealed a two-cm. mass in the right lower lobe of the lungs. At that time, the patient had no symptoms. Skin tests for histoplasmosis, blastomycosis and coccidioidomycosis, and bronchoscopy and bronchograms were all negative. The differential diagnoses entertained at that time were bronchogenic cysts, sequestral lobe, or AV fistula. In 1969, chest x-rays, done at the Jacksonville Naval Hospital in Florida, showed that the mass had increased from two to three cm. in size. Again, the patient had no symptoms.

Bronchograms, cardiac catheterization, and electrocardiographic studies were all negative. In December, 1976, at the United Hospital Center, Inc. in West Virginia, x-rays of the chest showed the mass now to be four cm. in size. Physical examination and laboratory work-up were unrevealing.

Six months later, in June, 1977, x-rays of the chest were performed, and they now revealed the mass to be five cm. in greatest dimension (Figure 1). The patient was advised to have the mass

resected. A right thoracotomy followed. The frozen section diagnosis was "benign," and the right, middle and lower lobes of the lung were removed. The patient withstood the procedure well, and the postoperative course was uneventful. Grossly, the middle and lower lobes of the lungs together weighed 200 grams and measured 11x10x5 cm. On section, through the border of the middle and lower lobes, a five-cm., yellowish-brown mass was noted. The mass had irregular outlines and cut with a gritty sensation. At the center of the mass, small, calcific particles were present (Figure 2). Microscopically, the histologic features showed numerous fibroblasts, prominent collagen formation, and an abundance of plasma cells associated with lymphocytes.

**Figure 1. 5.0-cm. mass in right lower lung field.**

**Figure 2. Cut surface of lung showing yellowish tumor mass.**

Many glandular spaces representing residual bronchio-alveolar structures were present. With the presence of focal ossification, we made the diagnosis of inflammatory pseudotumor, plasma cell granuloma type of the lung (Figures 3 and 4).

**Discussion**

Because of their benign course, plasma cell granuloma pseudotumors, since they were first reported in the literature,[5,12,13,14,15] have been adequately separated from the pure extramedullary plasmocytomas. The recognition of such lesions on frozen sections is of paramount importance since they may be confused with cancer, thus resulting in unnecessary surgery.

Cases of pseudotumors of the lung have appeared in the literature for over 40 years. They were called plasma cell granulomas, histologically, by Brunn in 1939[5] after being considered clinically as unusal "benign tumors of contradictory pathology." Even then, the tumor was seen in a five and one-half-year-old girl, who presented a five-cm. mass in the right upper lung lobe.

Over the ensuing years, other cases of benign, solitary, circumscribed, expanding masses in the lungs, thorax or mediastinum were reported. These masses were called xanthoma, xanthofibroma, xanthogranuloma, sclerosing heman-

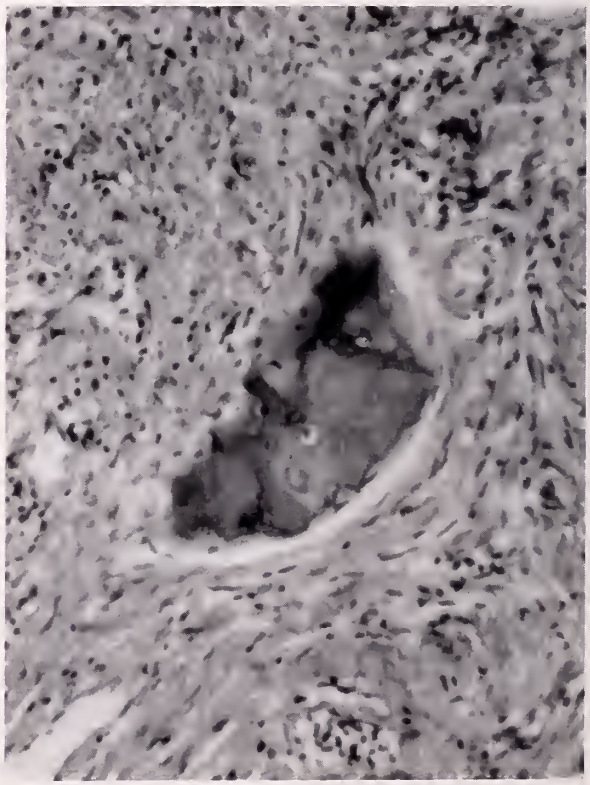

**Figure 3. Low-power field showing ossified calcific area with fibroblasts and collagen.**

gioma, fibroxanthoma, and pseudotumor or post-inflammatory pseudotumor.[6] In 1965, Golbert and Pletnev[1] reported 20 cases which they called pulmonary "pseudotumor." In 1972, Bahadori and Liebow[2] reported an additional 40 cases which they preferred to call plasma cell granuloma of the lung.

There have been differences of opinion in the past regarding the histogenesis of these tumors. Some cases were regarded as malignant and were included with the extramedullary plasmocytomas.[4] Pseudotumors of plasma cell granuloma types, however, are not associated with plasma protein or immunoglobulin abnormalities. They do not spread or metastasize. Spyker and Kay,[7] however, reported a case which arose from a mediastinal lymph node and extended to the lung. Many cases increase in size locally. Most of the cases, as reported by some, are usually postinflammatory and have some history of antecedent respiratory infection.[8,9,10]

Because of the large number of plasma cells in the lesions, the possibility of an immunologically-determined pathogenesis was considered by Bahadori and Liebow.[2] They indicated that the lung, being directly exposed to the external environment and thus to the inhalation of antigenic substances, were the main reasons for the immune response. They conceded, however, that a primary infectious process was a contributory factor.

**Figure 4. High-power field showing typical plasma cells with eccentric nuclei.**

### Incidence Not Known

The true incidence of the lesion is not known. In 1965, Golbert and Pletnev[1] of the Soviet Union reported that of 1,075 pulmonary and bronchial tumors encountered over a 13-year span, eight patients with pulmonary pseudotumors were observed, for an incidence of 0.7 per cent. Mason[11] *et al* reported a total of 26 cases in 1963. In 1968, Gerami *et al* indicated that up to that time only 42 cases had been reported. In 1973, Bahadori and Liebow[2] reported an additional 40 cases which were widely distributed in the continental United States and France, Lebanon, Mexico, Philippines, Czechoslovakia and Switzerland.

The sex incidences roughly show even distribution between males and females. The ages ranged from 13 months to 68. One third of the cases were found in patients below 20, and one half of these were found in children below 10. Fifty per cent of all cases are discovered on routine physical examination. A majority of the cases are asymptomatic. At times, the history may reveal cough, hemoptysis, chest pain or cyanosis. Clubbing of the fingers was reported in one of Bahadori's cases. Otherwise, physical examination and laboratory studies are generally unrevealing and non-specific. Skin testing for tuberculosis, histoplasmosis, coccidioidomycosis and blastmycosis are negative. Roentgenographically, the lesions on routine chest x-rays appear as either a circumscribed coin lesion or a larger, solitary mass in which small calcific densities may be seen.

Grossly, the masses are predominantly intraparenchymal within the lung lobe. However, cases of obstructed air passages have been reported, especially when they are intraluminal in the form of sessile polyps. They are situated mostly in the peripheral area of the lung and involve with equal frequency the right or left lung. Statistics show the lower lobes being more frequently involved.

### Size Range

The size of the mass may range from as small as 0.8 cm. to as large as 12.0 cm. The consistency may be firm, hard, friable, or rubbery. They may be round, irregular or ill-defined. The characteristic color is yellowish-white or, occasionally, gray to brown or golden-tan. Sometimes, areas of hemorrhage or necrosis are

present as well as areas of calcification or ossification. The significant cellular population consists of plasma cells which may have Russell bodies associated with bundles of collagen, reticuloendothelial cells and fibroblasts with hyaline material. Multinucleated giant cells are usually present in significant numbers. At times, the collagens and fibrous elements exhibit a leiomyomatous pattern. Other inflammatory cells consisting of lymphocytes, polymorphonuclear leukocytes and monocytes are invariably present. Small bronchi and blood vessels are prominent features seen entrapped within the masses.

The treatment is surgical and may consist of segmental resection, lobectomy or pneumonectomy, depending on the size and location of the mass. They do not respond to antibodies, anti-TB drugs, or steroids.

The prognosis is excellent. In reviewing the literature, most cases fare well following surgery. In the series of Bahadori and Liebow, only two patients of the 40 died. One died 10 months following pneumonectomy due to pneumonia. The other death was six months following pneumonectomy due to sclerosing mediastinitis.

### Summary

The case presented exhibits all the characteristic features of the entity. The 11-year history and duration of this mass in regards to age and location contribute to the uniqueness of this case. The longest duration in Bahadori and Liebow's[2] series was four years. Only Spyker's[7] case is longer, being 12 years' duration. However, in their case, the mass originated from the mediastinum and extended to the hilar region of the lung and occurred in a 37-year-old woman. At this writing, our case is now one-year postoperative right middle and lower lobectomy. The patient is well and asymptomatic.

### Acknowledgements

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# Yersinia Enterocolitica Serotype 0.20 Infection Associated With Sudden Death In An Eight-Month-Old Infant

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*A fatal case of Yersinia enterocolitica gastroenteritis in an eight-month-old infant is described. This is the second such fatal case reported in previously-healthy infants. Necropsy findings are presented as well as a brief discussion of the spectrum of disease associated with Yersinia enterocolitica.*

YERSINIA enterocolitica infection in the United States was first reported by Schleifstein and Coleman in 1939.[1] Subsequently, numerous case reports have been published, as well as a recent comprehensive review on Yersinia enterocolitica by Bottone in 1977.[2]

In young children, the most frequently encountered clinical syndrome is gastroenteritis.[3,4] Diarrhea has been reported to last up to several weeks with the stools frequently containing blood, mucus and leukocytes.[3,5,6] Other clinical syndromes include acute mesenteric lymphadenitis,[7] arthritis,[8,4] erythema nodosum[9] and septicemia.[10,11,12,13]

The following report illustrates an unusual case of Yersinia enterocolitica gastroenteritis and mesenteric adenitis associated with sudden death in an eight-month-old infant.

### Case Report

On November 20, 1977, a previously-healthy, 16-pound, nine-ounce, eight-month-old, white male developed fever and irritability. Several loose stools were noted and his temperature was reported to be as high as 102° F. daily. On November 26, the patient was admitted to a local hospital with a diagnosis of otitis media. The white blood cell count was found to be 11,700 with a normal differential count. He was started on cefazolin (Kefazol), 250 mgm. intramuscularly q 8 h. Over the next six days, he continued to run 103° and 104° F. rectal temperatures and to have five to seven loose stools daily, associated with frequent vomiting.

On December 2, 1977, because of his deteriorating condition, he was transferred to our hospital. The physical examination on admission revealed a lethargic, well-hydrated child with a rectal temperature of 103.5° F. Blood pressure by palpation was 80 mm. of mercury. The respiratory rate was 26, and the heart rate was 110. The abdomen revealed moderate distention, without apparent tenderness. Bowel sounds were diminished. The rest of the physical examination was unremarkable. The patient was admitted with a provisional diagnosis of gastroenteritis with possible septicemia.

Admission laboratory studies showed the peripheral white blood cell count to be 29,100 with 28 per cent polys, 27 per cent stabs and 45 per cent lymphocytes. Toxic granulations were noted. The hemoglobin was 10.9 gm/dl., and the hematocrit was 34 per cent. Serum sodium was 136 mEq./L.; serum potassium was 3.9 mEq./L.; serum chloride was 102 mEq./L.; pH was 7.32; and the serum bicarbonate was 16.6 mM./L. The cerebral spinal fluid glucose was 92 mgms./dl., and a simultaneous plasma blood sugar was 103 mgms./dl. The spinal fluid total protein was 18 mgms./dl.; it was gram stain negative and showed one white blood cell. Serum SGPT was 9 I.U./ml. and the BUN was 12 mgms./dl. A stool specimen was positive for occult blood, and numerous polymorphonuclear leukocytes were seen on Wright's stain. Specimens of blood, urine, cerebral spinal fluid and stool were submitted for culture.

The chest x-ray was within normal limits, and abdominal x-rays showed non-obstructive dilatation of the small bowel consistent with gastroenteritis.

The patient was started on chloramphenicol (Chloromycetin), 150 mgm. i.v. q 6 h and cephalothin (Keflin), 200 mgm. i.v. q 6 h. After 12 hours of therapy with intravenous fluids and antibiotics, the child was more alert and a repeat white blood cell count was 13,800 with 46 per cent polys, 10 per cents stabs and 44 per cent lymphocytes. Over the next 12 hours, the abdominal distention subsided and several diarrheal stools exhibiting traces of blood were noted. The patient remained febrile, with temperatures of 101° F to 102.5° F rectally. He appeared more alert, and was tolerating clear liquids orally. Thirty-six hours after admission, the child vomited and was noted again to have abdominal distention without tenderness. A nasogastric tube was placed and relieved the distention. Repeat

electrolytes at this time were normal. Approximately two hours later, the child was found apneic and without heartbeat. Resuscitative efforts were unsuccessful. Vital signs, including blood pressure, obtained one hour prior to death were normal.

### Laboratory Methods

The stool specimen was submitted directly to blood agar, EMB agar, Hektoen enteric agar and G.N. Broth. A gram negative organism was isolated from direct Hektoen enteric agar. An A.P.I. enteric identification revealed Yersinia enterocolitica. Sensitivity studies by the Kirby-Bower Disc method showed sensitivity to all antibiotics tested, including chloramphenicol and cephalothin, with the exception of carbenicellin. Cultures of the blood, cerebral spinal fluid and urine were negative. Subsequent subcultures of the stool isolate were confirmed by the West Virginia Department of Health and the Center for Disease Control in Atlanta. Subsequent serotyping was done by the Plague Branch of the Center for Disease Control in Fort Collins, Colorado, which revealed the organism to be serotype 0:20, Wauters Biotype 1, Niléhn Biotype 2.

### Necropsy Report

The abdomen was slightly protuberant. The thymus weighed 30 gm., and the spleen weighed 35 gm. The spleen had a smooth capsule and showed very slight diffluence and slight increase in prominence of the Malpighian corpuscles. The peritoneal cavity contained no excess fluid and was smooth and glistening. Many one-cm.-enlarged and matted lymph nodes were found in the mesentery of the large and small bowel, especially in the ileocecal region. The large and small bowel contained thin, brown fecal material. There was an unusual 2.5x2 cm. elevation of the medial portion of the ileocecal junction within the cecum, appearing to represent increased lymphoid elements. The cecum revealed some apparent lymphoid prominence. Microscopic sections of the distal ileum and proximal cecum showed abundant lymphoid hyperlasia in the muscularis mucosa, submucosa and muscle coats, most marked between the inner muscle coat and the overlying mucosa. In the submucosa, large, pale follicles were rimmed by diffusely-situated lymphocytes showing orderly maturation. In the adjacent adipose tissue, neutrophilic granulocytes and small miscroabscesses were noted to be bordered by rims of lymphocytes. In the submucosa of the ileocecal junction were microabscesses with surrounding slight proliferative reaction. The lumen of the appendix showed numerous neutrophilic granulocytes and occasional minute loss of mucosal integrity. The submucosa showed a few neutrophilic granulocytes, and the periappendiceal adipose and serosal tissues revealed increased numbers of lymphocytes. Focal microabscesses were noted in the mesenteric lymph nodes. Special stains were not revealing, and postmortum cultures were noncontributory.

*Final Anatomical Diagnoses*:

1. Antemortem stool culture showing Yersinia enterocolitica.
2. Marked lymphoid hyperplasia of the bowel.
3. Microabscesses of the bowel wall.
4. Focal appendicitis, acute.
5. Mesenteric lymphadenitis with focal microabscesses.
6. Thymic hyperplasia, slight.
7. Splenomegaly, slight.

### Discussion

Yersinia enterocolitica gastroenteritis in children is usually a benign condition. Berstrand and Winblad reported 31 cases, none of whom required parental fluid therapy.[3] Terminal ileitis is clinically difficult to distinguish from acute appendicitis, and the diagnosis is often made at the time of appendectomy. In uncomplicated gastroenteritis and terminal ileitis, antibiotic therapy does not appear to be necessary or to alter the course of the illness.[3,4] Septicemia occurs primarily in patients of advanced age or with underlying illnesses. In severe cases of gastroenteritis and systemic infection, antibiotic treatment should be guided by sensitivity testing. Most isolates of serotype 0:3, 0:8 and 0:9 show *in-vitro* sensitivity to chloramphenicol, sulfonamides, aminoglycosides and tetracyclines, and to the combination of trimethoprim and sulfamethoxazole. Partial or complete resistance is common to penicillin derivatives and cephalothin. Less experience is available with serotype 0:20. Mollaret has reported a series of 17 cases of septicemia with a mortality of approximately 50 per cent despite antibiotic therapy.[14] Similarly, Rabson has reported six fatal cases in a series of 13 despite antibiotic therapy.[10] The case reported here and that of a 19-month-old infant reported by Gutman[6] are the only fatal cases of Yersinia enterocolitica infection of which we are aware in previously-healthy young children.

The epidemiology of Yersinia enterocolitica infection is unclear. It is well-known that numerous serotypes, usually not pathogenic in man, have been found in hares and chinchillas. Serotypes which infect humans have been found in pigs, dogs, cats and deer. Human-to-human

spread is probably a more important source of infection, especially in epidemics, than are animal sources. The organism's extreme resistance to low temperatures may facilitate waterborne infection, especially in the winter months.

The most common serotype found in the United States is serotype 8, with serotype 3 being more common in Europe, Japan, Africa and Canada. Serotype 20 is much less common.

**Acknowledgement**

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# Cancer Vaccine In Next Decade?

In the next decade there may be a vaccine developed to cure cancer in humans. According to a recent article in the *Washington Post*, the vaccine that is nearly 100 per cent effective against all forms of cancer in rats and mice has been developed at the National Cancer Institute, National Institutes of Health. At the present time, however, the mouse vaccine works only in mice, and the rat vaccine only in rats.

Dr. Robert J. Huebner, who headed the research project, said the scientific principles that led to the development of these vaccines may make it possible to develop a similar vaccine for humans. He said cancer-causing agents, including some chemicals and viruses, produce genetic changes that transform normal cells into cancer cells.

# The Psychiatrically-Impaired Injured Worker Part I: Background And Data Review

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*The West Virginia Workmen's Compensation Fund disbursed 108 million dollars for medically-related claims in 1977, of which nearly 12 million dollars were spent for psychiatrically-related problems. Much of the disability paid for is preventable through early psychiatric intervention. Part I of this paper reviews the types of physical injuries most commonly associated with psychiatric disability. Part II* [*to appear in the July issue of* The Journal] *will explore some of the preventive and remedial efforts physicians can use to provide early rehabilitation for the injured worker and to avoid long-term disability.*

**Introduction**

Our present system of reimbursing claimants for compensable injuries occurring at work fosters disability. The court action is protracted, the claimant must remain "sick" or impaired for years and through numerous hearings and litigation proceedings in order to collect permanent impairment awards which are not statutory. The injured worker who ultimately seeks an award for alleged psychiatric injury does so years after the event and has usually not sought any psychiatric assistance in the intervening years, except for evaluations suggested by his lawyer simply to document his impairment. These evaluations are always conducted years after the injury, and the patient by then is a chronic, hopeless case and not much can be done for him. There is a myth among some physicians that these patients are actually faking or malingering and that they will recover as soon as enough "green poultice" (money) is applied. The sad truth is that these patients, once the disability process is completed, never seem to enjoy life, continue with their miseries and resist all efforts at even symptomatic relief or social rehabilitation. Political action may serve to speed up the lengthy judicial process and its consequence of stimulating disability. However, early emotional intervention by the treating physician with his injured-worker patient and prompt psychiatric referral when indicated could help curb these emotional impairments altogether.

The magnitude of this problem, at least in terms of the money involved, is well documented even though the misery these patients endure is hard to quantify. In 1977, the West Virginia Workmen's Compensation Fund disbursed 108 million dollars.[1] Nearly 12 million was for psychiatrically-related problems.[2] About two million was for purely psychiatric sequelae and the remainder for emotional problems associated with a significant physical injury. The companies for which these injured patients work must pay increased insurance premiums to the Fund, yet the losses are passed on to the consumer.

The injured worker tends to see himself as the innocent victim of an unfortunate accident which causes his ultimate disability, but the facts are otherwise. The injured worker also seeks an explanation, often in a cause-and-effect fashion, for the resultant disability. Thus, after the injury, the person begins to blame all of his life problems and poor coping on the injury, even though careful analysis shows that he had most of the problems long before the injury occurred.

In reviewing 200 cases referred by the Commissioner of the Workmen's Compensation Fund for psychiatric evaluation, it was found that the typical case was referred four and one-half years post-injury. Only 30 per cent of those evaluated had previously received any psychiatric evaluation or treatment. Many cases were evaluated 10 to 15 years after their injury. Unfortunately, within days to weeks after an injury, those who are going to develop psychiatric sequelae do so, and without treatment the symptoms soon become fixed and the disability process ensues. The psychiatric impairment usually occurs in a predisposed, vulnerable person, but with adequate early intervention these cases can recover. In West Virginia, however, by the time most cases are referred to a psychiatrist, the condition is a stable, chronic problem beyond hope of recovery or rehabilitation.

Psychological factors are most important in understanding the injury process, but physical factors are most easily changed. Brief mention of these factors will be useful to contrast what can be done about them versus what can be done about human factors. The sudden transfer of energy to humans from mechanical devices, chemicals or radiation can result in injuries. The efforts biomechanical engineers and industrial psychologists have made to eliminate these factors are well known in the examples of restraining drivers and passengers in vehicles and in separat-

ing vulnerable people from potential sources of energy. Detailed exploration of the various human factors in industrial injuries follows.

**Human Factors In Industrial Injuries**

1. *Role of Stress*

   a. *General Stress*

   Illness and injury are not purely accidental. They are not randomly distributed in the population. Thirty per cent of the population has 70 per cent of the illnesses, and when viewed in a brief time frame, 15 per cent of the population accounts for 90 per cent of the injuries. Holmes and Rahe have devised a method of quantifying stress and predicting who is at high risk for illness or injury. Their social readjustment scale measures stress accumulated over a one-year period by means of a point system.[3] Accumulation of over 300 points in a year statistically leads 80 per cent of the population to have a serious mental or physical ailment or accidental injury. These events which lead to stress can be either "good" or "bad" (for example, divorce equals 73 points; marriage equals 50 points), but all are stressful in that they call for a need to adapt to new circumstances.

   b. *Job-Related Stress*

   Jobs themselves can create both acute and chronic stress and predispose a person to illness and injury. Catecholamine release is high in acute stress, and adrenal corticosteroid production is high in chronic stress. Metabolites of these substances can be measured in the urine and blood, giving a quantitative description of the person's response to the stressful situation. Depression, coronary artery disease, hypertension, duodenal ulcer and colitis, and alcohol and drug intake are all stress barometers.[4] By measuring the biological factors, monitoring physiological variables (e.g., blood pressure, heart rate), administering psychological tests and performing psychiatric assessments, it is possible to demonstrate that workers suffer less stress when they are more certain of their job responsibilities and are more in control of their work situation.

   Employees at the top of a hierarchy tend to suffer less stress than middle managers. Machine-paced work and video terminal display work are quite stressful. Health-related jobs seem inherently stressful, especially for nurses, lab technicians and physicians' assistants. The stressee's perception of stress seems to correlate with the measured stress, especially when the subject notes the stress. Many workers, however, show evidence of considerable stress and are not aware of it. Stress relates to management policies and procedures and is high when workers have no participation in decisions affecting them. Role conflict at work produces stress when there are incompatibilities between two roles simultaneously occupied by the same person or between two or more behaviors required in a single role. Fatigue is particularly stressful when it results from over-work, worry, cutting time schedules, pushing one's self for self-induced deadlines, poor nutrition, lack of exercise, and problems in the immediate environment such as temperature or humidity extremes, distractions, noise, vibrations, poor ventilation, poor posture or cramped working positions.

2. *Susceptibility (Accident-Proneness)*

   Since proneness to injury is temporary and time-limited, nearly 50 per cent of all employees would have to be removed from a given work situation to effect a significant change in the accident rate. Obviously, this is impractical. The injuries occur within a social context, in an ecological situation, and in the interplay of man and machine, so each of these factors must be carefully examined. Just because one worker has a high number of injuries does not necessarily mean he is accident-prone; he may be the only person working in a dangerous job.

   All persons are susceptible to injury, but the susceptibility varies from person to person and in the same person with time and stress. The susceptibility to emotional or psychiatric impairment following an injury varies with age. Older men adapt more poorly and, although they have fewer injuries overall, when injured they have a higher tendency to develop emotional problems.

   There are three human factors suggestive of accident-proneness.

   (1) An inborn or personality factor such as awkwardness, anxiety, sloppiness, low intelligence, neurotic trait, defective perception, psychosis, character disorder, or alcohol and drug abuse may produce accident-proneness in certain individuals for certain jobs.

(2) A conscious factor such as failure to learn or comply with safety regulations, fatigue and inattention may be important in some cases.

(3) An unconscious factor such as guilt, latent conflict, wish for punishment, and success neurosis (difficulty being successful; self-defeating) can occur.

These concepts of accident-proneness are incomplete and outmoded. They largely have been replaced by the concept of a temporary injury syndrome in a vulnerable, predisposed person who is subject to stress.[5]

3. *Attitudes Toward Safety Procedures*

Psychologically, how a company and its workers cooperate determines how safely they will work together. The best safety attitudes are developed in workers when they sit down with management to formulate safety regulations together, implement them together and investigate injuries together. The combination of desire for high production at peak demand levels and lax safety procedures results in more injuries. Injuries also occur when major production systems and routines break down. Communications must be kept clear; the use of voice, hand or body signals and written messages with clear, comprehensive, unambiguous meaning facilitates safety. Official, not informal, methods of communications must be used; otherwise, transients and the new or uninitiated will cause injuries.[6]

### Methods

This paper reviews 60 cases from a total of 200 which were referred for psychiatric evaluation by the Commissioner of the Workmen's Compensation Fund. Fifteen cases were chosen from each of four age groups (18-30 yrs., 31-45 yrs., 46-55 yrs., and over 56 years) by randomly selecting the first 15 cases fitting into each age group. Charts were reviewed for site of injury, the presence of previous psychiatric treatment, educational level and psychiatric diagnosis. The psychiatric evaluation consisted of a clinical psychiatric interview, a detailed mental status examination, psychological testing by a psychologist for intelligence, organicity and personality variables, and a review of the accompanying medical data. Diagnoses were made using the DSM II criteria.[7] Assessment of the percentage of psychiatric impairment was rated during the examination according to the American Medical Association Criteria.[8] An estimate was made of the pre-existing (prior to the injury) psychiatric impairment and that psychiatric impairment resulting solely from the injury. The Commissioner or his agent then took this information regarding any psychiatric impairment, considered all pertinent economic, social and administrative factors, and assigned a permanent disability as appropriate.

### Results

Table I shows the breakdown of the cases. Some patients had more than one diagnosis. There were no age-related significant differences. The high percentage of back injury cases (43 per cent) and substantial number of head and lower-extremity injuries should be noted. The chest injury category is disproportionately high because of the number of occupational pneumoconiosis cases referred. Six per cent of the cases showed no mental disorder, 69 per cent of the patients had an injury-related psychiatric impairment, and 82 per cent had a pre-existing psychiatric impairment prior to the injury. Most of the pre-existing problems (33 per cent) were personality disorders (including alcoholism and drug abuse); 28 per cent also presented with mental retardation (most of whom were borderline—IQ of 68-83, or mild—IQ of 52-67). The majority of those with the injury-related psychiatric impairment (58 per cent) were of a neurosis, usually anxiety or depression. Note that only a third of the patients who had psychiatric disorders had received any type of psychiatric treatment. The time between the injury and the psychiatric evaluation averaged 4.4 years. The average patient had completed eight years of formal education.

### Analysis

The composite patient presenting for psychiatric-impairment evaluation was a worker with eight grades of formal education, usually had had a back injury four years previously, and had either a pre-existing personality disturbance or mental retardation. At the time of the evaluation he was anxious or depressed, with many physical complaints out of proportion to his physical findings, and had probably not sought any previous psychiatric help.

Weinstein has described elegantly the injury disability process.[9] He states that the industrial injury is usually preceded by a worker experiencing increased tension and stress leading to feelings of inadequacy and depression. The worker feels not appreciated and feels that other people (especially his supervisor) are demanding too much. He may be disappointed about promotion and may be uncertain about his job security, advancement or competence. He often has a personality disposition which is unusually sensitive to any signs of lack of support in his social network. He finds it very difficult to ack-

nowledge or request help directly and explicitly for the anxiety and tension state created by the stress because he is ashamed. He is ashamed of feeling bad and not being able to do anything about it. He is passive and dependent but will not accept that fact nor find any appropriate way to express it.

The injury itself usually occurs in a setting of fatigue and preoccupation with self and poor attention to the task at hand. The injury transforms the employee into someone whose distress and impaired performance can now be understood by himself and others as the product of an outside event which "could happen to anybody."

**TABLE I**

| | *Category* | *Number of Patients* | | *Percentage* | |
|---|---|---|---|---|---|
| I. | Patients Examined | 60 | | 100 | |
| II. | *Injury Site* | | | | |
| | Head | 11 | | 18 | |
| | Face | 2 | | 3 | |
| | Neck | 4 | | 6 | |
| | Arm and Hand | 5 | | 8 | |
| | Leg and Foot | 11 | | 18 | |
| | Chest | 8 | | 13 | |
| | Abdomen and Groin | 3 | | 5 | |
| | Back | 26 | | 43 | |
| | Total | 70 | | 114 | |
| III. | Time Between Injury & Psychiatric Evaluation | 4.4 years | | | |
| IV. | Education Level (years of school completed) | 8.2 years | | | |
| V. | *Diagnosis* | | | | |
| | No Mental Disorder | 4 | | 6 | |
| | | *Injury-Related* | *Pre-existing* | *Injury-Related* | *Pre-existing* |
| | Psychosis | 2 | 6 | 3 | 10 |
| | Neurosis | 35 | 2 | 58 | 3 |
| | Personality Disorder | 0 | 20 | 0 | 33 |
| | Mental Retardation | 2 | 16 | 3 | 28 |
| | Organic Brain Syndrome | 3 | 5 | 5 | 8 |
| | Total | 42 | 49 | 69 | 82 |
| VI. | Patients with both an Injury-Related Psychiatric Disorder and a Pre-existing Psychiatric Disorder | 19 | | 31 | |
| VII. | Patients with only an Injury-Related Psychiatric Disorder | 21 | | 35 | |
| VIII. | Patients with only a Pre-existing Psychiatric Disorder | 16 | | 27 | |
| IX. | Patients with an Injury-Related Psychiatric Disorder Who Had Received Psychiatric Treatment for it | 14 | | 23% of total patients<br>35% of those patients with Injury-Related Disorders | |
| X. | Percentage of Psychiatric Impairment (range = 0-85) | | | *Injury-Related* | *Pre-existing* |
| | | | | 10 | 9.3 |

It is thus understandable to all and compatible with an image of tough, self-sufficiency which is just the opposite of how he felt prior to the injury. Thus, the injury changed an unacceptable psychological disability associated with weakness and shame into an acceptable physical disability —one which is neither dishonorable nor shameful.

What rapidly follows is a "crystallization and stabilization of the disability as a way of life which is energized by the patient's ongoing personality style" and by the quick reinforcement of friends and relatives who urge a passive stance with regards to his physical condition, and retaliation toward the offending agent (the company and the Workmen's Compensation Fund) via the court system, lawyers, etc. Thus, sickness, regression, pain and disability are urged on as the person waits to "get" what he feels he is entitled to.

Since this process can crystallize within days in a highly susceptible individual and in most cases takes place in no longer than a few weeks, psychiatric rehabilitation after that is virtually impossible. Unwitting physicians may delay needed psychiatric intervention and reinforce the disability with needless tests in pursuit of vague complaints, with multiple evaluations by many specialists and with a "let us wait and see" attitude toward obvious behavioral and emotional problems in their recently-injured patients.

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*Part II will focus on further identifying the patient at risk for psychiatric disturbance after an injury, and on those workers at risk for injury. It will elaborate on what preventive and remedial efforts all physicians can use and when to refer for psychiatric specialist assistance.*

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*The teaching profession is the only profession that has no definition for malpractice.*

—Merimon Cuninggim

# Special Article

# The Outlook for Medicine in 1984—And Beyond*

JAMES A. REYNOLDS
*Executive Editor, Medical Economics, Oradell, New Jersey*

THIRTY years ago, an Englishman named Eric Blair peered into the future and recorded his gloomy thoughts on what it held for us. He saw a nation dedicated to Doublethink — the power, as he defined it, of holding two contradictory beliefs in one's mind simultaneously and accepting both of them. He saw a government committed to slogans—"War is Peace," "Freedom is Slavery," and "Ignorance is Strength." He saw a populace oppressed by a faceless leader known as Big Brother, harangued by loudspeakers ("Big Brother is watching you"), and hounded by Thought Police.

Eric Blair, the author of this apocalyptic vision, is better known to us by his pen name, George Orwell. His book, of course, is *1984*. Its impact was such that the year 1984 has come to have special significance for us.

The year 1984 is still more than four years away, but it's already clear that Orwell's vision isn't as far-fetched as it might have seemed 30 years ago. For example, take that matter of government by slogan. While it's true that no federal agency has gone so far as to proclaim that "War is Peace," the Nixon White House came close. Or consider Orwell's notion that "Big Brother is watching you." As any doctor knows only too well if he has competed against federally-subsidized Health Maintenance Organizations (HMOs), squirmed under the scrutiny of Professional Standards Review Organizations (PSROs), and wrestled with Health Systems Agencies (HSAs), Big Brother hasn't waited for 1984 to make his presence felt.

Given these facts, it seems appropriate for us to take a look at what the medical profession might be like in 1984 . . . and to look, moreover, at what awaits the profession in the years immediately beyond 1984.

I don't wish to overwhelm you with statistics, and I certainly don't want to lull you to sleep. I do want to examine some figures with you, however. While the process won't be painless, it really won't hurt too much. The lessons to be learned are so important that I hope you'll bear with me.

To put things in perspective, here's where we stand today—389,000 doctors, with 158,000 in primary care. Roughly two-thirds of these doctors are office-based. As we break out the vital component of primary care, I'm sure there won't be many surprises for you. But mark well the small but growing group of family practitioners. They'll have all kinds of impact in the 1980s.

By drawing on our own *Medical Economics*' surveys, U. S. Department of Health, Education and Welfare projections and other sources, we can project a *conservative* trend line—repeat, a *conservative* trend line — that looks something like this: a total doctor population of slightly more than half a million by 1985, growing to just under 600,000 by 1990 . . . and a primary-care population of some 210,000 by 1985, and about a quarter million by 1990. What you'll be seeing over the next dozen years, then, is a 53 per cent increase in total doctors and a 58 per cent increase in primary practitioners. Where are all these doctors coming from—and why do I say the projections are conservative?

### Medical School Expansion Over

Let's look first at our medical schools. In the late 1960s and early 1970s, there was a tremendous push to expand them to meet what was perceived as a doctor shortage. Public and private funds suddenly became available for expansion, and the American Medical Association was placed under tremendous pressure to accredit more schools. The success of this crash program is evident in the spurt of graduates between 1965 and 1975. But note how the program will level off by 1984. It's finally dawned on everyone that what we have is maldistribution rather than a shortage, and the great age of medical school expansion is over. The 16,000-plus graduates predicted for 1984 will hold fairly steady through the remainder of the decade — *unless* the government decides to prime the family-practice pump. This would not only help meet an increased demand for primary care under National Health Insurance, but would also ease the distribution problem, as we'll see later.

*Presented at the 111th Annual Meeting of the West Virginia State Medical Association at the Greenbrier, White Sulphur Springs, August 24, 1978.

Minority enrollments, which more than doubled in the last 10 years, will rise only slightly from now on. Female medical school graduates will level off at about 30 per cent by 1980. Foreign medical graduates are the big cloud in our crystal ball. Between 1970 and 1976, foreign doctors entered the country at the rate of 5,000 a year. That should come as no surprise to you here in West Virginia—since about 40 per cent of your doctors are foreign medical graduates. Various laws, governmental restrictions and declining surgical residencies are supposed to cut that influx of FMGs in half by the early 1980s. There are so many loopholes, however, that no one has any real idea what will happen. The figures we are dealing with are based on cutting the flow in half and are probably fairly accurate through 1984. If a significant number of FMGs squeeze though the loopholes, by 1990 we could have 15,000 more physicians than our figures now show.

### On the Low Side

Another reason to suspect that our projections for physician numbers might be on the low side is that HEW's original figures on the number of doctors dying and retiring appear to have been too high. The "Feds" are busy cranking new numbers into their computers, and it's possible revised projections will show an additional 3,000 to 4,000 doctors in 1990. All of this—the possible pump-priming for family-practice training, and the possible continuation of FMG arrivals—suggests that we'll have even more physicians by 1990, the official figures show.

How are we going to keep all these doctors busy? Three factors—National Health Insurance (when and if), the growing expectations of the public, and an aging population—will very likely keep demand for services at least partially in step with supply.

Let's look first at National Health Insurance. Despite all the drum beating and posturing in Washington, it's likely that we're *at least* several years away from *any* kind of NHI legislation, and whatever might be passed will be phased in after that. President Carter has at last come face to face with the economic implications of the comprehensive program he campaigned for, and it's clear that he'd just as soon the whole thing would go away until he can figure out a workable cost containment program. Most of the action you're seeing in Washington is a presidential version of the Ali Shuffle, designed for the time being to delight, dazzle, and delay. Organized labor, Ted Kennedy and Ralph Nader might want National Health Insurance *now*, but the man in the White House clearly doesn't.

In addition, a lot of congressmen would like to let the tooth marks inflicted on their flanks by constituents incensed over higher Social Security taxes heal before they tackle a problem like National Health Insurance. While it's quite possible that we'll have some form of national health insurance by 1984, the program will be walking rather than running.

Regardless of what happens in Washington, the public is becoming more and more turned on to health, and demanding more of doctors. We see some signs of this in our latest survey. Doctors are putting more hours into their practices but seeing fewer patients, perhaps as the result of spending more time with them.

Eleven per cent of our population is now over age 65, and with increasingly sophisticated medical techniques and emphasis on a better life style, the percentage will increase steadily. If there's a major breakthrough in cancer or heart disease, there could be quite a jump in the over-65 population. More older people, in any case, will require more medical care.

Will we have the resources to provide this care? Probably we will. Right now we have one of the highest doctor-patient ratios of any nation in the world. If there is *no change* in the demand for services, we can see that this ratio would improve substantially by 1990. Given the physician increases projected now—and remember, they're conservative—it's estimated that we could absorb *at least* a 35 per cent increase in demand for services and be no worse off than we are today.

### Greatest Single Factor

I mentioned earlier that family practice will be the greatest single factor in the physician manpower picture. If the present growth pattern continues, the number of FPs will double by 1985 and nearly triple by 1990—good news, I suspect, to doctors in states like West Virginia where there's a shortage of primary-care physicians. This doubling and tripling will more than offset the decline of general practitioners, who today make up just over 10 per cent of the physician population and whose number will dwindle to less than 6 per cent by 1990. Other primary-care specialties will remain about the same as a percentage of the doctor population, and we'll see a dropoff in oversupplied surgical fields.

We may be underestimating the strength of the FP movement if the government really throws its weight behind it. There are a couple of reasons for thinking this might happen. First, FPs will be the shock troops to absorb the increased

demand for basic services that will accompany any NHI program—again, when and if. Second, FPs tend to set up practice in doctor-short areas, thus easing the distribution problem. To further deal with maldistribution, the government will add more and more sweeteners to lure doctors to the hinterlands but will stop short of trying to order them there. And never underestimate the old principle of economic supply and demand. In the period before National Health Insurance, supply and demand should nudge more and more doctors into rural areas.

It's harder to pinpoint the role of the office-based practitioner in 1984 and beyond. As I said earlier, two out of three doctors elect office practice today. While it's reasonable to assume that a good majority of our doctors will continue to follow this pattern, some factors could mitigate against it.

What are some of these factors? Consider the matter of malpractice. There are signs that doctors aren't nearly as agitated about malpractice as they were just a couple of years ago. Insurance is available in all states; doctor-run insurance companies are doing surprisingly well; curbs on litigation have been passed in many states and in several instances have survived court challenges, and the number of suits filed generally is down a bit. But if this respite proves temporary and the malpractice crisis heats up again, you might find more and more doctors opting out of direct patient care.

National Health Insurance—once again, when and if—will certainly have some negative effect on office-based practice, but how much can't yet be predicted. It doesn't seem likely that anything will be passed that forces doctors into hospitals, but the increased paperwork and bureaucratic frustrations of National Health Insurance are bound to drive a number of doctors into non-patient related activities. My guess is, many of you in this room have at one time or another been so fed up with bureaucratic red tape that you've thought of getting out.

Health Maintenance Organizations are intertwined with National Health Insurance. If the government throws additional money into HMOs, and if National Health Insurance favors this form of patient care over others, you could see as much as a quarter of the population served by HMOs by the mid to late 1980s. If the government lets nature take its course—that is, simply encourages free-market competition—the figure may be as low as 5 per cent.

One thing is certain. By 1984, the majority of doctors will be in group practice. The trend has been in this direction for years, and as medicine becomes more complex and the demand for time off increases, the movement will accelerate.

### Summary

In summary, then, here's how things look for 1984—and beyond. In raw numbers, there'll be a *lot more doctors* around — and they'll be *younger*. There'll be better balance among the various specialties and better geographic distribution . . . *less maldistribution*, in other words. But because of the increased demand for services, there won't be much of a doctor surplus. There'll be a higher proportion of *primary-care* physicians, thanks to the family practice phenomenon. Growth in family practitioners will more than make up for the decline in GPs, while other primary doctors will at least hold their own.

There'll probably be a slightly smaller percentage of doctors in office-based practice, and the majority of them will be *practicing in groups*. And bear in mind, once again, that all of these estimates are conservative. The figures I've discussed with you may understate the influx of FMGs. They might understate the number of doctors dying and retiring. We might very well have more doctors — a *lot* more doctors — by 1984, not to mention 1990, than we anticipate.

The point I'd like to leave with you is this: The outlook for medicine in 1984—and beyond —is one of change . . . change in doctor demographics, change in public expectations, change in legislative requirements.

None of this change, I'm sure, comes as a surprise to any of you. No matter how bad it gets, bear in mind that it could be worse. While Big Brother may watch you even more closely in the years ahead than he does now, it's unlikely that he'll ever scrutinize your pactice as closely as he would if George Orwell were to write the scenario.

*A message from . . .*

# *The President*

## INTEREST, DEDICATION, CONCERN

HAVING just completed my travels to the surrounding states' organizations and most of the 28 component societies that comprise the West Virginia State Medical Association, I want to share with you, the members, some of my observations.

First, I would like to thank each society for the kind hospitality shown both me and my wife, Alice Jo. You, through your kindnesses, made our visits very comfortable and enjoyable. As we formed new friendships and renewed old ones, I felt even more proud to be associated with such interested, dedicated, concerned fellow physicians.

One of the main problems, especially for the smaller communities, still seems to be the shortage of physicians, particularly in family practice and other primary specialties. I feel that most of these problems will be solved within the next five years if the current trend—75-80 per cent of those physicians completing family practice programs remain in the state to practice—continues.

Another concern, of course, is the cost of medical liability insurance. Improvements have been made in this area during the past year through a curtailed rate of increase in premiums and an increase in dividends received. The outlook for next year, I believe, is even brighter due to competing forces within the insurance industry.

Your chief concern, comprehensive national health insurance, has been defeated through your individual efforts and through the efforts of those you have elected to represent you on a national level. It is quite certain that some form of catastrophic coverage will be enacted, but the passage of any cumbersome, all-encompassing, federally-controlled health plan has finally, after 30 years of struggle, been laid to rest. However, we must continue to be vigilant in order to remain free of further government intervention or control.

Alice Jo and I will be looking forward to seeing many of you at the annual American Medical Association meeting in Chicago next month, and also at the Greenbrier in August.

Robert D. Hess M.D.

ROBERT D. HESS, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

**MEDICAL CARE BUDGET**

We vividly recall tongue-clucking condemnations of the "two-tiered system of medical care, one for the rich and the other for the poor" which were heard while Medicare and Medicaid were being promoted before Congress.

It was a telling line. An approach difficult to defend. There *were* the poor who simply were not charged by their doctors; others were charged. There *were* hospital wards, and house or teaching services where the poor were cared for without charge; others paid. Yes, there were some definable differences fiscally. But once this was acknowledged, it was next to impossible to make the point that no discernible difference in quantity or quality of medical care provided could be described. The result is history.

This memory comes flooding back after an examination of details of medical care budget figures in the 1979-80 West Virginia budget. This year, the Department of Welfare, with a supplemental appropriation of 2.5 million dollars, will have 27.7 million dollars for direct medical services, an amount almost certain to leave the Department with deep money problems.

For the next fiscal year, Welfare will have 30.5 million dollars in state money for medical services, an apparent increase. But with a mandated drop in Federal matching funds of at least 2 million dollars, and allowing for anticipated inflationary costs, the Department could be even further in trouble at this time next year.

The end point is all too clear. Your smiling and ever-generous government bureaucrat, having gathered unto himself and monopolized exclusive rights to the charitable dispensation of all good things in life including medical care, now will find it desirable to start rationing some part of those good things.

Welfare recipients, those very ones to be protected from the damaging effects of that "two-tiered" medical care system, might now be subjected to the indignity, if not the danger, of a stringent rationing of their medical care benefits. The West Virginia budget seems to allow no other choice. An honest-to-God, two-tiered system of medical care apparently has been erected by those would-be saviors of the poor and afflicted.

Why must these be so cheated while grand highways are paved past every graveyard in the state? Why does the Rockefeller Administration have more regard for roads than for people?

Promises of medical care have been given. Commitments have been made. Programs have been set up. Expectations have been encouraged. Funding has not been given.

Disappointment, anger, even rage can be expected when the extent of required rationing can no longer be hidden. Political retribution will surely follow.

Our concern and our sympathies remain with the poor and the sick. We will not now recommend, encourage or participate in this two-tiered system wherein the poor in West Virginia are promised the world and are given that much of it as they can scrape up beneath their fingernails.

We will not excuse nor will we rationalize the inadequacies of the medical care budget. The commitments made should be met. The budget is deliberately and shamefully inadequate to carry out the promises made.

Deceptiveness and dishonesty are perhaps traditional in composing the West Virginia budget because of the petty politicking required to pass it. That part providing for the health or the very lives of its less fortunate citizens should be held immune and protected from the depredations of self-serving parochial interests within the state.

Such protection has not been granted by the Rockefeller Administration and the Legislature. As a result, the coming year well might see the realization of a de facto, two-tiered system of medical care with obligatory rationing of that care among those for whom the state of West Virginia has assumed responsibility.

**YOU, THE READERS**

A story in the news section of this issue of *The Journal* tells of an award this publication has won in some first-class competition. The Editorial Board and Medical Association staff are proud of the honor—but others also have played a key part in progress we have made toward a nationally-recognized product.

First and foremost among those "others" are you, the readers. The response to *The Journal;* the honest criticism and many suggestions you have provided; and your assurance through a recent survey that you read your own state publication—all of these things have been of utmost importance.

The many changes effected in *The Journal* have reflected, in the past two years or so, substantial numbers of your, the readers', suggestions. We're also deeply grateful to Mrs. John M. (Dolly) Hartman, wife of one of the Editorial Board members, for her cover design which played a great part in the award.

We're "red-shirted" for this year, as far as the Sandoz medical journalism competition is concerned, because the 1978 contest winners can't seek to defend their honors. But that won't detract from continued efforts by all hands to make *The Journal* even better.

Such a publication does, indeed, require a lot of work. However, even without the icing provided by an honor such as that from Sandoz, it's more than worthwhile if you, the readers, appreciate it. We have evidence that you do—evidence that perhaps is underscored by the large number of letters we've received from you for the readers' forum in recent months.

Please keep up the good work, as readers. Keep *The Journal* staff on the ball with any observations you have. That way, a good product always can be improved.

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**GUILTY PLEA!**

The mouth of the Federal Trade Commission (I would prefer to say head but somehow that doesn't seem appropriate) has again attacked the concept of professionalism and codes of ethics.

This time he charged that, by determining criteria for licensing, certification and other qualifications, we and all other professionals limit access to services, and by doing so restrain trade. He further claims that by doing this we determine and define the scope of our own activities and thereby, in some manner, harm the public. He doesn't say whether he believes there should be no limits or rules at all, or whether the government should set them. The latter item is the easier one to dispense with so let's deal with it first.

Recent re-elections, trials, and the convictions of two members of the House of Representatives—one from Michigan, the other from Pennsylvania—have shown that the government cannot enforce even a weak code of ethics (don't get caught stealing) on its members, let alone try to impose a meaningful one on a profession.

Furthermore, the passage of Proposition 13—where the people had to restrict part of the legislature's power of taxation—is an example of the lack of responsiveness that the legislature has to the public's needs and wants.

Now let's consider whether there should be any codes of ethics or certification processes at all. Let's go back and take a look at some of the activities we're accused of, and let's bear in mind that this accusation is not aimed just at physicians but at all other professions as well. I'm sure each of the other professions has its own list.

The Flexner Report, which in 1910 established criteria and certification for medical schools for the first time, guaranteed the public that a person having an M. D. degree was a graduate of a legitimate school providing standardized training.

Down through the years the medical profession's efforts led to the establishment of clean water and sewage treatment laws, local health departments, food inspection laws, and medical examiners instead of untrained county coroners. The American Medical Association's drug-testing laboratory first established the concept that drugs should be proven both safe and effective before being accepted for clinical use. When this laboratory outgrew the ability of the AMA to support it, it was turned over to the federal government and became the Food and Drug Administration.

The concept of postgraduate and continuing medical education requirements grew out of the medical profession's sense of obligation to guarantee high-quality care. The list goes on and on, but each one of these is an example of how we have in one way or another provided a certification process, and thereby limited the privilege of delivering medical care to those people who were properly trained.

If these are examples of things that I as a member of a limited, licensed, certified profession, am accused of by the Federal Trade Commission, I'm ready to enter my plea—guilty as charged.—*Richard F. Corlin, M. D., in the Los Angeles County Medical Association Physician.*

# Our Readers Speak

## Kudos For Review Article

*(Addressed to Charles R. Lewis, Managing Editor)*

I would like to compliment you on your lead review article in *The West Virginia Medical Journal*, Vol. 75, #2, February, 1979, entitled "The Preventive Treatment of Asthma," by Edwin J. Morgan, M. D. Not only do I feel that it is a most timely and pertinent article, but I am also impressed with the format of a quiz on the material at the end of the article. I feel that this is a move in the right direction for the *Journal* and for continuing education for its readers. I am sure that your readers found the true/false quiz intellectually stimulating, helpful in the retention of the material, and in general, fun.

Keep up the good work.

Samuel B. Folio
Educational Coordinator
Clinical Cancer Education Program
College of Human Resources and Education
West Virginia University
Morgantown 26506

## Congratulates Our Editor

*(Addressed to Stephen D. Ward, M. D., Wheeling, Editor)*

A press release crossed my desk today reporting that the West Virginia Medical Journal was a $500 first-prize winner in the fourth annual competition conducted by Sandoz Pharmaceuticals.

That's a real feather in your cap, and I say that as one editor to another. I got a kick out of showing the press release around at the office and telling the folks here that "Hey, I know this guy!"

James A. Reynolds
Executive Editor
Medical Economics
Oradell, New Jersey

(*Editor's Note*: Mr. Reynolds has many friends among West Virginia physicians; and his keynote address at the Medical Association's 111th Annual Meeting at the Greenbrier in August, 1978, appears, by coincidence, as a Special Article in this issue of *The Journal*.)

## CDC Reviews Journal Article

Dr. John H. Wolfe, Jr., in his letter published in the April issue of *The Journal*, suggests that my article on Legionnaire's Disease (published in *The Journal* in February) be sent to the Center for Disease Control in Atlanta. I had taken the liberty of doing precisely that. The remarks of the CDC follow in the correspondence directed to Senator Byrd.

Arthur N. Ward, M. D.
105 Doctors Drive
Bridgeport 26330

Honorable Robert C. Byrd
United States Senate
Washington, D. C. 20510

Dear Senator Byrd:

This is in reply to your letter of February 19, which forwarded a letter from Dr. Arthur Ward, Bridgeport, West Virginia, and a reprint from the "West Viginia Medical Journal" of February, 1979, of an article written by Dr. Ward. These are returned herein as you requested. . .

"Legionnaires' Disease" was a name applied to a pneumonic disease associated with the American Legion Convention in Philadelphia in 1976. There were many theories as to its cause until the Center for Disease Control (CDC) provided convincing evidence for a gram negative bacterium as the etiologic agent, and began to examine specimens from other episodes of similar outbreaks of undetermined cause. They also provided reagents to other investigators. From this came recognition that the disease occurs all over the world, sometimes in small outbreaks, more often as sporadic cases. An association of some outbreaks has been made with wind drift from air conditioning cooling towers. Soon to be published in the "Annals of Internal Medicine" will be the complete group of reports discussed at the "Conference on Legionnaires' Disease" which the National Institute of Allergy and Infectious Diseases (NIAID) and the CDC sponsored in Atlanta last October. Those attending, with one or two exceptions, had no trouble in accepting the evidence that the disease is due to infection with a gram negative bacillus now named *Legionella pneumophilia*.

This does not disprove Dr. Ward's theory that some cases with clinical similarity may be due to exposure of sensitized persons to this bacterium or other organisms. In fact, at the symposium the distinct possibility that this was the mechanism involved in the "Pontiac Fever" outbreak was mentioned. Both the CDC and the NIAID are aware that such a mechanism can be operative and are not ignoring the theories about which Dr. Ward has written. There is yet much to be learned about this disease, and we are actively stimulating research within the limits of available resources. Another few years should yield a considerable increase in our knowledge.

I trust this reply will meet your needs.

Sincerely,

Richard M. Krause, M. D.
Director, National Institute of
Allergy and Infectious Diseases
Bethesda, Maryland 20205

## Favor Conservative Approach

Re: "Diagnostic and Therapeutic Measure for Copperhead Snake Bite," by Quirico S. Santiago, M. D.

Doctor Santiago has written an interesting article about Copperhead bite in the March, 1979, edition. The summary of the article noted the unusal features of his case, but goes on to recommend an aggressive diagnostic and therapeutic approach which could be considered applicable to all cases of Copperhead Snake bites.

We are of the belief that it would be best to emphasize the general principles of Copperhead bite care; namely, first, do no harm. Specifically, there would appear to be no reason to use local hypothermia or steroids in these patients. Second, that muscle compartment pressure can be measured, and only when the pressure approaches arterial diastolic pressure need fasciotomies be done; and third, antivenom can be administered upon signs of systemic toxicity. Utilizing these principles, it would be extremely rare that these patients would require the aggressive approach outlined in Doctor Santiago's article. With these principles in mind, we would like to emphasize the "conservative approach" in the vast majority of cases.

James Rogers, M. D.
Surgical Resident
Charleston Area Medical Center

Bert Bradford, Jr., M. D.
Clinical Professor Emeritus of Surgery
Charleston Division
West Virginia University Medical Center

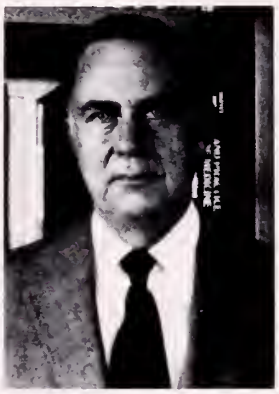
James P. Boland, M. D.
Professor and Chief of Surgery
WVU Charleston Division

# GENERAL NEWS

## Drugs Used For Musculosketal Disease Convention Topic

A paper on drugs in the treatment of musculoskeletal disease will be presented by Michael E. Crouch, M. D., of Morgantown during the 112th Annual Meeting of the West Virginia State Medical Association, August 22-25 at the Greenbrier in White Sulphur Springs.

Michael E. Crouch, M. D.



Leighton E. Cluff, M. D.

Doctor Crouch, Assistant Professor of Medicine at West Virginia University School of Medicine, will speak on "The Use of the Newer, Non-Steroidal, Anti-Inflammatory Drugs in Treatment of Musculoskeletal Disease." His presentation will be during the second general session on Friday morning, August 24.

Also speaking on drugs, during Thursday morning's first general session, a "Symposium on Drug Reactions and Interactions," will be Leighton E. Cluff, M. D., of Princeton, New Jersey, as announced previously. His topic will be "Perspectives of Clinical Problems with Drugs."

Doctor Cluff, an internist, is Vice President of The Robert Wood Johnson Foundation in Princeton.

Annual Meeting activities will get underway with a 2 P. M. meeting of the Association's Executive Committee on Tuesday, August 21; the usual pre-convention meeting of the Council at 9:30 A. M. on Wednesday, and the opening House session at 3:00 P. M. on Wednesday.

Doctor Crouch came to WVU School of Medicine in July, 1977, from the University of Minnesota where he was Instructor in Medicine. A native of Kansas City, Missouri, he is a Diplomate (1975) of the American Board of Internal Medicine.

He attended high school and college in Arkansas, receiving his M. D. degree in 1972 from the University of Arkansas.

Doctor Crouch served his internship and residency at University Hospitals in Minneapolis, Minnesota, and was Chief Medicine Resident at Minneapolis Veterans Administration Hospital. He was a rheumatology fellow at University Hospitals in Minneapolis from 1975 to 1977.

Doctor Crouch is an Associate of the American College of Physicians, and a member of the American Rheumatism Association and Alpha Omega Alpha.

Doctor Cluff, a native of Salt Lake City, Utah, held a variety of teaching positions at Johns Hopkins University in Baltimore during his early career, and later was Professor and Chairman of Medicine at the University of Florida College of Medicine from 1966 to 1976.

### FDA Consultant

Among numerous professional appointments, Doctor Cluff is Consultant for the United States Food and Drug Administration, member of the American Medical Association's Residency Review Committee; Chairman, Association of Professors of Medicine, Liaison Committee with National Institutes of Health; President, Infectious Diseases Society of America; Consultant, National Institute of Environmental Health Sciences; member, Advisory Panel on National Health Insurance to Subcommittee on Health of the Committee on Ways and Means, U. S. House of Representatives; Chairman, Committee on Clinical Pharmacology and Therapeutics, American College of Physicians, and 1979 Chairman, Panel, Conference on Pharmaceuticals for Developing Countries, "Major Disease Problems of the Developing Countries: The Current Status of Preventive, Prophylactic, Diagnostic and Therapeutic Agents."

Doctor Cluff is Associate Editor for The American Journal of Epidemiology, and is a member of the editorial boards of American Journal of Medical Sciences; International Journal of Clinical Pharmacology, Therapy and Toxicology; Diagnosis News; Postgraduate Medicine; Antimicrobrial Agents and Chemotherapy, and Internal Medicine News.

He also serves as Consulting Editor for Dermatology Digest; Antimicrobial Agent and Chemotherapy, and Time-Life.

Doctor Cluff was graduated from the University of Utah and received his M. D. degree in 1949 from George Washington University. He interned at Johns Hopkins Hospital, served residencies there and at Duke University Hospital, completed postgraduate training in immunochemistry at the Johns Hopkins University School of Public Health and Hygiene, and was a Visiting Investigator and Assistant Physician for the Rockefeller Institute for Medical Research as a Fellow, National Foundation for Infantile Paralysis.

He is the recipient of the 1969 George Washington University Alumni Achievement Award and the 1977 Distinguished Alumni Award, Duke University Medical Center.

#### First General Session

Also speaking during the first general session Thursday morning, as announced previously, will be W. Leigh Thompson, M. D., Ph. D., Co-Director of Clinical Pharmacology and Critical Care Medicine, University Hospitals of Cleveland; and Frank J. Ayd, Jr., M. D., Director of Professional Education and Research, Taylor Manor Hospital, Baltimore; and Professor of Psychiatry, WVU Medical Center, Charleston Division.

Doctor Thompson's subject will be "Drug Levels: Fact and Fancy," while Doctor Ayd will speak on "Psychotropic Drug Interactions."

### Greenbrier Reservations Due By July 7

Reservations for the 112th Annual Meeting of the West Virginia State Medical Association should be made with the Greenbrier no later than Saturday, July 7, in order to comply with the hotel's requirement that all reservations must be received no later than 45 days prior to the meeting. Reservation forms provided by the Greenbrier have been distributed to all Association members. Any physicians who need additional forms should write or call the Association's headquarters office in Charleston.

In addition to Doctor Crouch, the speakers for the Friday morning general session, as announced previously, will be Eric L. Radin, M. D., new chief of orthopedic surgery at WVU, whose subject will be "Update on Total Joint Replacement," and Robert Bettinger, M. D., of Morgantown, who will discuss "The Pain Clinic: Unique Approach to an Old Problem."

Doctor Radin has been Associate Professor of Orthopedic Surgery at Harvard Medical School, while Doctor Bettinger is Assistant Professor of Anesthesiology at WVU Medical Center.

A "Symposium on Liver Disease," also as announced previously, will be held as the third general session Saturday morning. The speakers will include Harry H. LeVeen, M. D., Chief Surgical Service, Veterans Administration Hospital, Brooklyn, New York; and Professor of Surgery, State University of New York, whose subject will be "Surgical Treatment of Ascites," and Saul Krugman, M. D., Professor of Pediatrics, New York University Medical Center, New York City, "Viral Hepatitis: New Developments."

#### AMA President To Speak

Dr. Hoyt D. Gardner of Louisville, Kentucky, who will be installed as President of the American Medical Association during the AMA House's Annual Meeting in Chicago in July, will address the first House session (contingent upon other demands which might develop at the time of the meeting).

The general Convention format once again will provide opportunities for breakfast, luncheon and other meetings of a scientific and/or business nature, of the various sections and specialty organizations affiliated with the Medical Association. It is anticipated that most of these again will be scheduled on Friday (August 24).

Plans also call for the usual President's Reception on Wednesday evening, August 22, and the Saturday evening reception for new officers. The latter will follow the second and final House of Delegates session at 2:30 P. M. on Saturday which will bring the inauguration of Dr. Stephen D. Ward of Wheeling as President to succeed Dr. Robert D. Hess of Clarksburg.

Members of the 1979 Program Committee are Drs. Arthur A. Abplanalp, Charleston, Chairman; Marshall J. Carper, South Charleston; Cordell de la Pena, Clarksburg; George J. Hill II, Huntington; Robert H. Waldman, Morgantown, and Stephen D. Ward, Wheeling.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. D. Sheffer Clark of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's Convention.

# Medico-Legal

*Editor's Note:*

*The following material was prepared by Richard D. Lindsay, M. D., J. D., a 1974 graduate of West Virginia University School of Medicine and a 1978 graduate of the West Virginia University School of Law. He is a member of the American College of Emergency Physicians, West Virginia State Medical Association, and the West Virginia State Bar Association. He curently is practicing law and emergency medicine in Charleston.*

## Physician-Consultant Liability

The law will not allow anyone who may have injured someone to escape his liability for that injury. Sometimes it appears that the law and the plaintiff's attorneys overreach and have "everyone," without discrimination as to action or reality, named as defendants in a lawsuit. When this occurs, or seems to occur, it usually is a procedural problem that the plaintiff's attorney has in finding out enough information to develop his case. It is very difficult to acquire any information about a particular happening from potential defendants on an informal basis, for most will not even speak to the plaintiff's attorney, either for reasons of personal protection or protection of other physicians in general, so that the only way that the attorney can protect the rights of his client is to file a lawsuit and then proceed by judicial order in his search for the correct information.

We shall review the state of the law regarding the liability of consultants, as we feel that, with the push by insurance companies and the federal government to get additional or second opinions, any physician who heretofore might not have been included as a defendant in a malpractice action because of only peripheral responsibility in the handling of a particular case now will be named—and might be found liable. A physician who consults on a patient for another physician will be basically liable when there is 1) a "concert of action" between them; and 2) a "common purpose" between the doctors.[1]

These terms of application are broad and very nebulous, and probably only provide the first step in analyzing a particular consulting physician's liability. In the above qualifications, it is noted that there is no mention of the patient. Conceivably a radiologist, or pathologist, with whom a physician discusses a case without any procedure being performed or tissues analyzed could fall under the "concert of action" and "common purpose" theory regarding the liability. More rationally, there should be knowledge and acceptance on the part of the patient as to whether he wishes the services of this additional physician. This would make the relationship more acceptable for the potential defendants, as they will prevent a physician who happens to be discussing a case with another physician over a cup of coffee from being included as a defendant.[2]

This acceptance of the patient does not, however, have to include a fee paid. A doctor who gratuitously renders treatment is held to the same standard of care as a compensated physician.[3]

Similarly, a doctor who (1) concurs in the diagnosis; (2) concurs as to treatment; and (3) indicates his participation in supervising the treatment, is jointly liable to the patient along with his primary physician.[4]

### Summary

Certain factors are important in establishing the liability of a consultant:

1. the patient's knowledge and acceptance of the consultant;
2. the participation of the consulting physician and the diagnosis and treatment of the patient;
3. the concurrence of the consulting physician with the attending physician's diagnosis and prescribed treatment;
4. the supplemental supervisional participation of the consulting doctor at the initial diagnosis and treatment.

1. *Fehmer* v. *Smirl* 25 Wisconsin, 2d 645, 131 NW 2d, 314 (1964).
2. *Bolles* v. *Kinton* 83 Colorado 147, 263 Pac. 26 (1928).
3. *Persten* v. *Chesney* 212 SW 2d 469, Missouri Court of Appeals (1948).
4. *Montgomery v. Stary* 84 Southern 2d 34 Florida Supreme Court (1955).

## Bronco Junction To Have New Medical Director

Dr. Chandra M. Kumar, who received pediatric and adult allergy training at the University of Chicago and Rush Medical Center in Chicago, is the new Medical Director of Camp Bronco Junction for asthmatic children in Putnam County.

Doctor Kumar succeeds Dr. Merle S. Scherr, who has moved from Charleston to Scottsdale, Arizona. Doctor Scherr will continue to serve Camp Bronco Junction, however, in a new role of Chief Medical Consultant.

## Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1979, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

| | | |
|---|---|---|
| June 2 | Charleston | 6th Annual Wildwater Surgery Conference |
| June 8 | Charleston | 6th Annual Alumni Education Day |
| June 9 | Morgantown | Anesthesia Update |
| Sept. 20-21 | Morgantown | Hal Wanger Family Practice Conference |

**Visiting Professors**

(Morgantown)

| | |
|---|---|
| June 7-8 | Mortimer Rosen, M. D., Professor, Department of Obstetrics and Gynecology, Case Western Reserve University, "Antenatal Fetal Assessment: Electronic Monitoring of the Fetus and the Fetal Brain" and "Medicine and Anesthesia in Pregnancy: A Clinician's Guide" |
| June 8 | David J. Stewart, M. B., Anaesthetist-in-Chief, The Hospital for Sick Children, Toronto, "Anaesthesia for Cardio-Vascular Surgery in Children" |

## Journal Wins Top Award In Sandoz Judging

The West Virginia Medical Journal is a winner!

Specifically, it has been awarded first place in competition for small state journals (with circulation under 3,000) conducted as part of Sandoz Pharmaceuticals' fourth annual medical journalism program.

The honor carries a $500 cash award and a certificate, which hopefully will be presented to Stephen D. Ward, M. D., of Wheeling, the Journal's Editor, during the State Medical Association's August 22-25 Annual Meeting at the Greenbrier in White Sulphur Springs.

The Sandoz awards are designed to recognize the unique importance of state and local professional journals. They are part of a year-around project to stimulate and develop improved journalism techniques among small-circulation, specialized health publications, the East Hanover, New Jersey, pharmaceutical firm explained.

"We are delighted that the program has proved to be helpful to physicians and other editors," Craig D. Burrell, M. D., Vice President of Sandoz, added. "We hope that the many recent changes, particularly graphics improvements and clearer writing, have benefitted physicians and other readers of these publications."

The West Virginia Medical Journal is published monthly—and it's in its 75th year—by the West Virginia State Medical Association. Its circulation is about 2,500.

High-quality paper and printing help to make the well-structured layout easy to read, judges' comments in relation to the first-place award emphasized. "The scientific and news sections are clearly defined; and recently were improved with new headings," the critique added.

Doctor Burrell wrote Doctor Ward that "the competition was more intense this year (the competition embraced 1978 publications) than ever before because of the redesign and other improvements recently made by many publications. You and your staff indeed should be pleased."

Under the direction of its Editorial Board, which also is the Medical Association's Publication Committee, the West Virginia Medical Journal has undergone an overall facelifting, including a completely new cover design, over the past couple of years.

Emphasis has been centered about content as well as design, with particular efforts to improve such components as the editorial pages.

Members of the Editorial Board in addition to Doctor Ward are Drs. Vernon E. Duckwall of Elkins, L. Walter Fix of Martinsburg, John M. Hartman of Charleston, Thomas J. Holbrook of Huntington, Joe N. Jarrett of Oak Hill and E. J. Van Liere of Morgantown.

At the Association's State Office staff level, the Journal represents an all-hands operation with Mr. Charles R. Lewis, the Association's Executive Secretary, serving as Managing Editor and Mr. Custer B. Holliday, the Executive Assistant, responsible for the major editing and writing required.

Mrs. Keith Hamilton, the Association's Administrative Assistant; Mrs. Chester Shanklin, the bookkeeper, and Miss Mary Sue Thompson, clerk and receptionist, are involved in advertising, circulation and other work each month.

## Class Size Of 36 At MU Approved By LCME

The Marshall University School of Medicine has received the go-ahead to increase its entering class size from 24 students to 36, Dr. Robert W. Coon, Dean, announced recently.

"The Liaison Committee on Medical Education (LCME) . . . has agreed to accept the recommendation of its site visitation team that we be permitted to enroll 36 students at the first-year class level, beginning this fall," Doctor Coon said.

He observed that "the LCME's decision is further confirmation that our program is a good, solid one which is developing smoothly. This action by the medical education accreditation body also opens up 12 more medical school slots for students in this region who wish to become primary care physicians."

Marshall's medical school entering class size will remain at 36 until the school's $8.4 million medical education building is ready for use. The structure, which is to house all the basic sciences departments and some of the clinical departments, will be constructed on the grounds of the Huntington Veterans Administration Medical Center and is expected to be ready for occupancy in 1981.

The medical school, developed under the VA Medical Assistance and Health Training Act passed by Congress in 1972, opened its doors to its first class of 24 students in January, 1978, and enrolled a second class last September.

Currently, there are 47 students in the program which has been designed to prepare primary care physicians to serve particularly in southern West Virginia.

# Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Understanding Arthritis and Rheumatism* (paperback), by Malcolm I. V. Jayson, M. D., and Allan St. J. Dixon, M. D. 234 pages. Price $1.75. Dell Publishing Company, Inc., New York, New York 10017. 1974.

*Principles of Clinical Electrocardiography, 10th Edition*, by Mervin J. Goldman, M. D. 415 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Annual Review of Neuroscience, Volume 2*, W. Maxwell Cowan, Editor, and Zach W. Hall and Eric R. Kandel, Associate Editors. 555 pages. Annual Reviews, Inc., 4139 El Camino Way, Palo Alto, California 94306. 1979.

*Correlative Neuroanatomy & Functional Neurology, 17th Edition*, by Joseph G. Chusid, M. D. 464 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

## Educational Materials Offered By Cancer Society

The following educational materials are available to physicians without charge by writing the American Cancer Society, West Virginia Division, Inc.

"Hodgkin's Disease & Other Malignant Lymphomas," a 21-minute, 16 mm., color film which explains the necessity for early detection and prompt referral to experienced teams at adequately equipped centers to achieve the improved survival rates that are possible today.

Available with the film are ACS publications, "Malignant Lymphomas"—Henry S. Kaplan, M. D.; Saul A. Rosenberg, M. D.; John E. Ultmann, M. D., and Richard S. Stein, M. D.; and "Cancer Chemotherapeutic Agents"—Irwin H. Krakoff, M. D.

The address for requesting the above is: American Cancer Society, West Virginia Division, Inc., 240 Capitol Street, Suite 100, Charleston 25301.

Please allow two weeks for film and material requested.

## State EENT Officers Elected At Spring Meeting

Dr. Moseley H. Winkler of Charleston was elected President of the West Virginia Academy of Ophthalmology and Otolaryngology during the group's recent National Spring Meeting at the Greenbrier in White Sulphur Springs.

Other officers include Drs. James L. Bryant, Clarksburg, Vice President; J. Elliott Blaydes, Bluefield, re-elected Secretary-Treasurer; and Drs. Nime K. Joseph, Wheeling, Albert C. Esposito, Huntington, and William C Morgan, Jr., Charleston, all Directors.

This year's four-day, 32nd annual meeting, according to Doctor Blaydes, included more than 30 hours of specialized instruction for updating both ophthalmologists and otolaryngologists in treatment techniques, instrumentation and equipment, and surgical procedures.

The 1980 meeting will be held April 20-23 at the Greenbrier.

**Members of the faculty for the Ophthalmology Division of the West Virginia Academy of Ophthalmology and Otolaryngology during the Academy's recent National Spring Meeting at the Greenbrier in White Sulphur Springs were, first row (from left), Drs. Robert Machemer, Durham, North Carolina; Richard Troutman, New York City, Kenneth J. Hoffer, Santa Monica, California, and J. Elliott Blaydes, Bluefield, Secretary-Treasurer of the Academy. In the back row are, from left, Drs. D. Jackson Coleman, New York City; Arthur C. Chandler, Jr., Durham; Charles D. Kelman, New York City; Albert C. Esposito, Huntington, an Academy Director, and Moseley H. Winkler, Charleston, Academy President.**

**The Otolaryngology faculty for this spring's meeting of the West Virginia Academy of Ophthalmology and Otolaryngology included, from left, Drs. Philip M. Sprinkle, Morgantown, a Director of the Academy; M. Stuart Strong, Boston; William C Morgan, Jr., Charleston, also a Director; Thomas C. Calcaterra, Los Angeles, and Charles J. Krause, Ann Arbor, Michigan. Not shown was Dr. Michael E. Glasscock of Nashville, Tennessee.**

## More Than Half Of WVU Grads Choose Primary Care

Primary care specialties were the residency choice of more than half (48) the West Virginia University School of Medicine graduates who completed their study during the 1978-79 school year.

Internal medicine was the most popular choice (23), with family practice (14) next. Obstetrics/gynecology attracted six, and five chose pediatrics.

Some of the five who will enter a flexible first postgraduate year will probably choose a primary care specialty later.

Other types of programs chosen include surgery (13), psychiatry (10), anesthesiology (6), pathology (4), radiology (3) and neurology (2).

Forty of the 74 men and 18 women will stay in West Virginia for their residencies, with 24 choosing primary care areas. Nineteen will remain at WVU Medical Center, 13 will join the house staff of the Charleston Area Medical Center (CMAC), and four each will become residents with the Kanawha Valley Family Practice Center and the Wheeling Hospital Family Practice Program.

The 92 graduates listed include three who completed their study in December and are now into their residencies. One member of the class will take a one-year hiatus and has not chosen a

residency. The remaining 88 will begin postgraduate study on July 1.

Class members, their home towns and destinations are:

Thomas A. Alberico, Fairmont, University of Virginia Hospital, Charlottesville; Matthew Barton, Morgantown, National Naval Medical Center, Bethesda, Md.; John R. Beatty, Huntington, WVU Department of Surgery; Marilee Benson, Wheeling, North Carolina Memorial Hospital, Chapel Hill; Stephen L. Bower, Charleston, North Carolina Baptist Hospital, Winston-Salem; Carl G. Bowling, Oak Hill, University of South Florida Affiliated Hospitals, Tampa; Mary S. Boyd, Huntington; Georgianna T. Burns, Morgantown, and Rosemarie Cannarella, Follansbee, WVU Department of Pediatrics.

Randolph J. Canterbury II, University of Virginia Hospital, Charlottesville; James P. Carey IV, Huntington, Cincinnati (Ohio) General Hospital; Kim J. Chillag, Holden, CAMC; Carolyn E. Clark, Huntington, North Carolina Baptist Hospital, Winston-Salem; Stephen H. Cooksey, Bridgeport, William A. Shands Teaching Hospital, Gainesville, Fla.; Francis M. Cyran, Vienna, Wright Patterson Air Force Base, Dayton, Ohio; Joseph J. David, Huntington, University of Virginia Hospital, Charlottesville.

Thomas R. Douglass, Charleston, Hospital of Saint Raphael, New Haven, Conn.; Peter R. Edelman, Charleston, CAMC; Donald W. Fennell, Bridgeport, Medical University of South Carolina, Charleston; Paul F. Francke, Charleston, CAMC; Marc C. Friedman, Charleston, Beth Israel Hospital, New York; Richard L. Garrison, Montgomery, Kanawha Valley Family Practice Program; Gregory D. Gibbons and Rebecca G. Gibbons, Columbus, Ohio, Riverside Methodist Hospital, Columbus; Peter C. Gleason, Morgantown, University of Maryland, Baltimore.

James D. Gloor, Narragansett, R. I., Roger Williams General Hospital, Providence, R. I.; Martha S. Hales, Morgantown, University of California Hospital, San Francisco; William K. Hamilton, Nitro, Andrews Air Force Base, Washington, D. C.; Roland E. Hamrick, Jr., Charleston, Charity Hospital of Louisiana, New Orleans; Samuel D. Hensley, Dry Branch, Lackland Air Force Base, Texas; John D. Holloway, Wheeling, Cleveland (Ohio) Clinic Hospital; Elizabeth A. Johnson, San Antonio, Texas, Medical Center Hospitals of South Carolina, Charleston; David L. Jordan, Petersburg, North Carolina Baptist Hospital, Winston-Salem.

Mark K. Joy, Morgantown, Mercy Hospital, Pittsburgh; Robert A. Kayser, Jr., Point Pleasant, and Lawrence B. Kelly, St. Albans, CAMC; Jane E. Kosa, Dunbar, University of Alabama Medical Center, Birmingham; James M. Kyle, Morgantown, WVU Department of Pediatrics; Max F. Lebow, Wheeling, Wilmington (Del.) Medical Center; William J. Lester, Huntington, CAMC; Rebecca J. Lindsay, Fairmont, University of Virginia Hospitals, Charlottesville.

Robert T. Linger, Charleston, Kanawha Valley Family Practice Program; Carl F. McComas, Huntington, WVU Department of Neurology; Laura B. McDaniel, Star City, WVU Department of Anesthesiology; Joseph E. McDermott, South Charleston, WVU Department of Neurology; Michael S. McIntosh, Parkersburg, Wheeling Hospital Department of Family Practice; Andrew H. Mace, Jr., Weston, WVU Department of Radiology; Samuel M. Mahaffey, Morgantown, William A. Shands Teaching Hospital, Gainesville, Fla.; Evelyn W. Manetta, Morgantown, WVU Department of Medicine; Michael R. Martz, Bridgeport, Pitt County Memorial Hospital, Greenville, N. C.

William C. Mercer, Wheeling, Wheeling Hospital Department of Family Practice; Timothy C. Miller, Spencer, WVU Department of Surgery; George B. Moomau, Petersburg, Wheeling Hospital Department of Family Practice; Elizabeth A. Mooney, Charleston, Vanderbilt Univer-

**Among top winners at the West Virginia University School of Medicine Awards Convocation in May were, from left, students Thomas Croghan of Clarksburg, Susan Davis, Beckley, and Deborah Dickert, South Charleston. Dr. David Z. Morgan, right, Associate Dean, presented the student awards. (See "WVU Medical Center News" page in this issue of The Journal for the complete listing of award-winners.)**

sity Affiliated Hospitals, Nashville, Tenn.; Patricia A. Morgan, Ravenswood, Cincinnati (Ohio) General Hospital; Melinda C. Mullins, Davy, WVU Department of Medicine; Konrad C. Nau, Wheeling, WVU Department of Family Practice; Mickey J. Neal, Philippi, CAMC; Jeffrey L. Neely, Fairmont, Medical Center Hospitals of South Carolina, Charleston.

Thomas W. Noel, Huntington, University of Utah Affiliated Hospitals, Salt Lake City; Dennis R. Perenyi, Bluefield, Methodist Hospital of Indiana, Indianapolis; David M. Perilman, Morgantown, Miami Valley Hospital, Dayton, Ohio; Stephen E. Perkins, South Charleston, Kanawha Valley Family Practice Program; Keith J. Popovich, Morgantown, University of Arkansas Hospital, Little Rock; William K. Poston, Jr., Brooke Army Medical Center, San Antonio, Texas; Maurice D. Pendergast, Fairmont, and Thomas M. Przybysz, Weirton, Mercy Hospital, Pittsburgh; Dennis I. Pullins, Point Pleasant, North Carolina Baptist Hospital, Winston-Salem.

Robert J. Pusateri, Weirton, Charlotte (N. C.) Memorial Hospital; Thomas D. Rapp, Martinsburg, Kanawha Valley Family Practice Program; Thomas D. Roberts, Morgantown, Greenville (S. C.) Hospital System; Robert A. Rombola, Fairmont, CAMC; Claude K. Shannon, Tunnelton, Wheeling Hospital Department of Family Practice; Joseph A. Sheppe, Charleston, CAMC; Doyle R. Sickles, Morgantown, WVU Department of Anesthesiology; Howard A. Stansberry, Jr., Grafton, Medical University of South Carolina, Charleston; Howard J. Stanton, Eleanor, CAMC.

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## Drug Dispensing Authority Clarified By Court

Physicians have authority under West Virginia law to supply drugs to their patients; make reasonable charges for their services, including any medications they supply; and may dispense amounts of drugs as they deem sufficient to the patient's course of treatment.

That is a key point in a unanimous opinion handed down by the State Supreme Court of Appeals in early April. The Court also held, however, that a physician may not fill prescriptions written by other physicians, nor sell at retail such drugs as he supplies to his own patients.

The opinion modified somewhat language included in a lower court case, involving action brought by a pharmacy owner against a physician in a southern county. The matter was before the appellate court on appeal.

The lower court order said, in part, that a physician shall have the right to administer, dispense, and supply to his patients such drugs, medicine and legend (prescription) drugs and other dangerous drugs, so long as such supply of such medicine to his patients shall not be made as a sale.

## AMA Urges Increased Funding For 13 Major Programs

The American Medical Association has urged Congress to increase funding for 13 programs that "hold the greatest promise for improving our nation's health."

In letters to the chairmen of key Congressional committees, the AMA said it was limiting its recommendations for increased appropriations in fiscal year 1980 because of inflation in the general economy and the need to control deficit spending.

"We are working with Congress to develop legislation that will focus on positive health strategies as well as health program cost reductions," the AMA said.

"The challenge is to act with fiscal constraint and responsibility while making sure our federal tax dollars are spent in the best possible way."

The AMA recommended that funding be increased beyond President Carter's budget request by $613.4 million, with the largest increase going to the National Institutes of Health ($227.6 million) and health professions education ($143.4 million). More money also was recommended for maternal and child health, family planning, emergency medical services,

venereal disease control, immunization, childhood lead-based paint poisoning prevention, health education, mental health, alcoholism, aging and the Food and Drug Administration.

The letter described AMA efforts to restrain costs through the National Commission on the Cost of Medical Care and the Voluntary Effort, and called on Congress and the Administration to continue implementation of the anti-fraud and abuse legislation and the Medicare-Medicaid quality control and management program, and to support the Voluntary Effort and the PSRO program.

The AMA also recommended that Congress and the Administration support actions to reduce the high costs caused by excessive federal regulation, seek a spending reduction of at least two per cent annually in operating expenses of all federal agencies, and support "sunset" plans that would provide for periodic review of federal spending programs.

## Hospital Memberships In OMEN Invited

Applications are now being invited for membership in the Ohio Medical Education Network (OMEN), which begins it's 18th year of service in mid-September. OMEN is the largest, accredited, two-way, visually augmented, amplified telephone network for physicians in North America. During this past season, medical staffs at 126 hospitals in nine states and Canada took part in these continuing medical education seminars. The programs originate "live" from The Ohio State University campus in Columbus.

Each of the 30 once-a-week programs begins at 12:30 P. M., Ohio time, and lasts one hour. One hour of Category 1 credit from the American Medical Association is available for attendance at each program. Continuing education study credit is also provided by the American Academy of Family Physicians. The 1979-1980 season starts the week of September 17, 1979, and continues through the first week of May, 1980, with "time off" during Thanksgiving week, Christmas week, and New Year's week.

Individuals wishing more complete information on the network are invited to call (614) 422-4985, or write: Arthur A. Bartfay, Networks and Media Coordinator, Center for Continuing Medical Education, The Ohio State University, A-354 Starling Loving Hall, 320 West Tenth Avenue, Columbus, Ohio 43210.

# *Medical Meetings*

June 10-12—Am. Diabetes Assn., Los Angeles.

July 21-26—AMA Delegates Summer Meeting, Chicago.

**Aug. 22-25—112th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.**

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 6-8—National Breast Cancer Conference (Am. Cancer Society), New York City.

Sept. 12-16—Medical and Chirurgical Faculty of the State of Maryland, New Orleans.

Sept. 14-16—AMA Regional Meeting, Williamsburg, Va.

Sept. 21-23—Central Assn. of Obstetricians & Gynecologists, White Sulphur Springs.

Sept. 23-25—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Sept. 25-27—Kentucky Medical Association, Louisville.

Oct. 4-6—Am. Neurological Assn., St. Louis.

Oct. 4-6—Am. Assn. of Electromyography & Electrodiagnosis, New Orleans.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-17—Indiana State Med. Assn., Indianapolis.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 21-27—Am. College of Gastroenterol, Anaheim, Calif.

Oct. 22-26—ACS (Clinical Congress), Chicago.

Nov. 1-3—Pa. Med. Society, Camp Hill.

Nov. 1-4—Med. Society of Va., Hot Springs.

Nov. 4-7—Southern Med. Assn., Las Vegas.

Nov. 4-8—Am. College of Chest Physicians, Houston.

Nov. 5-8—Am. Assn. for the Study of Liver Disease, Chicago.

Nov. 5-9—Am. Academy of Ophthalmol., San Francisco.

Nov. 16-17—Med. Society of Delaware, Wilmington.

Nov. 29-30—Am. College of Chemosurgery, Chicago.

**1980**

**Jan. 25-27—13th Mid-Winter Clinical Conference, Charleston.**

April 20-23—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

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# The Psychiatrically-Impaired Injured Worker, Part II: Identification, Prevention And Remediation

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*This paper describes the potential value of office counseling and psychiatric intervention in injured workers subject to psychiatric impairment and eventual disability. Preventive and remedial programs are described. The need for an Accident-Injury Investigation Form is noted and a model form supplied. Part I of this paper (June issue of The Journal) reviewed the types of physical injuries most commonly associated with psychiatric impairment and traced the theories behind the disability process.*

Part I of this paper examined the typical case seen for psychiatric-impairment rating and discussed the theories explaining the disability process. The large amount of money spent each year for psychiatric disability in West Virginia was noted and a plea was made for early emotional intervention and psychiatric referral if necessary.

Part II will expand on the areas of prevention and remediation, and will use a public health model of primary, secondary and tertiary prevention.

Industrial physicians can be leaders in developing the kinds of safety and rehabilitation programs to be described. If physicians could identify and treat these cases early (within weeks of the injury), and if only 50 per cent were helped, probably between three to four million dollars per year in insurance premiums in West Virginia could eventually be saved. Even at the national level, little attention is paid to behavioral occupational problems, for out of a 45 million-dollar annual budget (1977) for the National Institute of Occupational Safety and Health (NIOSH), only $1.2 million went to researching behavioral problems—only 2 and one-half per cent of the budget.[1] Three levels of prevention will now be examined:

I. *Primary Prevention*—the promotion of mental health and prevention of psychiatric disorders.

A. *Proper selection and screening*: Screening is very important, because with the liberal interpretation of the Workmen's Compensation law in West Virginia, and the large number of cases being reversed in favor of the claimant by the Supreme Court, the elimination of potential problem employees at this level is best for all concerned. By law, the employer must take a person "as he or she is," and is liable for any injuries or emotional disorders resulting from the person's employment even though the person might have been on the verge of a breakdown for some time. The "right person for the right job" should be the guideline. Certain tests can pick up impulsiveness, attention-span problems and separate out the high-risk, vulnerable worker from dangerous job situations. The use of testing to identify strengths, aptitudes and interests has a long tradition in industry. Intensive psychiatric assessments are now routine for such high-risk jobs as commercial pilot and policeman.

B. *Proper training, education and indoctrination of employees*: New employees need a thorough explanation of the company's rules, regulations and requirements as well as training in safe work practices.[2] A high level of job knowledge along with adequately-supervised experience cut down on the large numbers of injuries that plague new workers. Teach

the person that "the right way is the safe way." Emergency drills, methods to handle altered routines, and methods to establish priorities at peak production demand also are ways of rehearsing potentially stressful situations and teaching safe, efficient coping mechanisms.

C. *Vigorous, effective safety programs*: A safety program with supervisory and management backing and full worker participation is effective. Improving safety devices, eliminating potential hazards and faults in the man-machine system, removing unfavorable environmental factors, working on motivation to prevent injuries, and developing self-care practices both on and off the job in a team effort can all be useful in implementing an effective safety program. Rewarding of safe behavior with social approval, recognition, and material or monetary gifts is also effective. Creative use can be made of group brainstorming sessions which focus on efficiency and safety. Consultations with behavioral specialists, dietitians and exercise experts may help build up the stamina of workers, mentally and physically, so that they are more alert and less prone to injuring themselves due to fatigue, and better able to handle stress. The consultations also can serve to alert workers to seek professional help promptly when troubled.

D. *Good labor relations*: Worker participation in decisions that affect them leads to less stress, less boredom and increased morale with increased self-fulfillment. Examples of recent trends include establishing a non-adversary working alliance between labor and management, flex-time arrangements, job re-alignments and redesigns based on worker input, and worker participation on corporate boards. Programs that have indirect benefits of increased safety include those that bolster morale, enhance job satisfaction for the elimination of negative attitudes, that organize the work process for environmental planning, and that enhance group functioning.

II. *Secondary Prevention*: This is early recognition of emotional and behavioral disorders and initiation of effective programs to deal with them.

A. *Pre-injury cases*: Identify the "accident looking for a place to happen" type of person — often an alcoholic, depressed, anxious and tense, or impulsive person who has had a recent change of behavior or a personality change. The worker is considered to be in the pre-injury phase. Anxiety and tension are mounting and, if not relieved, may result in a serious injury. Other telltale signs of this phase are decreased production, absenteeism and sloppy work. Even more alarming should be the occurrence of a near miss— this signals that the person likely will have an injury if something isn't done soon. Get that person help before an injury occurs.

B. *Treatment for a mental or behavioral reaction to a physical injury*: Early therapy (within a few weeks of the injury) is essential; otherwise, fixation, regression, chronicity and disability result, and psychiatric intervention is thereafter virtually impossible. A triage system must be set up among personnel officers, safety committee members, management, in-house plant physicians, in-house counseling or employee relations people as well as treating physicians. They must counsel what they can and refer to psychiatric specialists quickly those cases not amenable to the group support and informal counseling available in their job setting, or from their personal physicians. Orthopedic surgeons are the physicians most likely to treat up to 75 per cent of the cases that ultimately come for psychiatric-impairment evaluation, so their early attention to psychiatric factors, and prompt referrals, are vital.

C. *Accident-Injury investigation*: West Virginia lags behind other states and the federal government with regard to accident-injury investigations. It is surprising that West Virginia has no standardized, in-depth investigative form, for sample forms are in use by many other states and countries. A detailed, formal report with strong follow-up can prevent future injuries and save money; also, an investigation of "near misses" can be as fruitful as investigations of real injuries, and may prevent injuries. All injuries in the military service of the United States are followed up with a detailed analysis of the factors in the person's life (especially within the preceding 72 hours) with attention to nutrition, stress, fatigue, personal concerns and worries, and any psychological factors, physical factors or

any lapses in safety procedures that may have contributed to the injury.[3] A model investigation form follows which could be used by safety officers, personnel officers and industrial physicians. It should have the following major sections:[4]

(a) *Principles*: Here, the overall concepts of prevention and cause-and-effect relations are considered within these perspectives: person-machine, person company organization relations, person-work environment, and person-social and family environment. The person's physical condition, what he/she ate and when he/she slept and all things that led to stress must be considered. An investigative team comprised of representatives from labor and management must assemble the data and prepare the report.

(b) *Collect facts*: Collect those facts that can be read, observed, measured and weighed as well as those that can be inferred. Demographic data, the physical and emotional condition of the person, time and place, environment with machine, materials and company organizations are all basic. Background data should be obtained, showing the worker's overall work performance, his previous accident history, his attitudes toward work, self-care and safety, and the presence of any disturbed or disturbing behaviors. Use a checklist to gather the data and organize it.

(c) *Prepare a report*: Separate the facts from assumptions. Give a narrative description after listing all the facts. Make recommendations.

(d) *Subsequent action*: The report could be used in-house to develop trends, make corrective actions and facilitate prevention. The report also would be useful for industry-wide statistics. A copy should be placed in the personnel folder, and one sent to the patient's personal physician to alert him to any psychological or social factors and the need for early psychiatric intervention.

III. *Tertiary Prevention*: This is the rehabilitation and return of the identified patient to his peak level of functioning by concentrating on his assets and recoverable functions rather than his liabilities. The focus is on the complications of disuse such as the social break-down syndrome. Although many of these chronic patients will never rejoin the labor force, their disability may be minimized, and some social recovery can be expected.

**Treatment Techniques**

*Alcoholism*: Industrial departments successfully rehabilitate 60 to 70 per cent of alcoholics in contrast to only 20 per cent recoverable by private physicians acting alone. The attitude of the helping person is important, i.e., firmness and a positive expectation tempered with tolerance for setbacks. and a willingness to spend time and interest with the patient. It is especially helpful to have a built-in counseling program at the company and liaison with detoxification units at general hospitals or psychiatric hospitals and with Alcoholics Anonymous and psychiatric practitioners in the community.

*Stress*: Stress reduction should prevent many industrial injuries. As Hans Selye, the originator of the concept of stress, said, "It is not what happens to you that matters, it is how you take it." He defines stress as "a nonspecific response of the body to any demand made upon it which results in a general adaption syndrome." He states that we can use stress to our advantage to point us to useful activity and to prevent aimlessness. However, there needs to be a balance between work and leisure, and outlets for our talents. We should not frustrate ourselves by attempting that which is beyond us, and we should stick to what we can do well. Change, diversion and personal growth can result from stress.[5] The following tips, "General Preventive Measures,"* could be used by industrial or personal physicians in their efforts to reduce stress in vulnerable workers:

1. Become familiar with life stress events and the social readjustment scale.
2. Recognize when a life stress event happens —identify its personal meaning to you and the feelings experienced.
3. Think about ways to adjust to the event.
4. Take time at arriving at decisions.
5. Anticipate life changes and plan for them (premarital, prechild, preretirement).
6. Pace yourself even if you are in a hurry.
7. Eliminate the "deadline" attitude and "go-stop" behavior.
8. Don't make too many life changes in too short a time.
9. Talk over your feelings and reactions with someone you trust and respect.
10. If you begin to be overwhelmed, seek professional assistance early to get coping better before a major upset.

*Adapted from a lecture by Holmes, T. H., Conference on Psychosomatic Medicine, April 2, 1977, Charleston, West Virginia.

11. Avoid self-induced stresses, pushing self in spite of minor illnesses, sleep- or rest-deprivation, late hours, alcohol, drugs.

*Industrial Psychological Safety Measures* (by the author):

1. Stay current and proficient in your work area.

2. Know the whole "picture" of your organization's day-to-day operation and stay ahead of the situation (avoid last-minute rushing to meet deadlines, avoid massive changes in production, hours worked or conditions of work).

3. Insure adequate coordination of the efforts of everyone.

4. Don't work beyond your capabilities or your experience.

5. Combat fatigue: Break the monotony, stay busy, break your routine, eat balanced meals, do isometrics, get adequate rest and recreation, and keep in good physical shape with exercise off the job.

6. Anticipate excess fatigue from: jet lag in traveling, temperature and humidity extremes, noise, vibration, sunglare, poor ventilation, human-system overload, and apprehension from worry or lack of confidence or inadequate proficiency or training.

7. Avoid caffeinism (coffee, tea, soda pop, chocolate, OTC drugs).

8. Avoid nicotinism (tobacco in any form).

9. Consult your plant or personal physician for minor problems and advice.

10. Adjust shift changes to the worker's natural body rhythms (it takes at least two weeks for wake-sleep cycles to readjust after a shift change, and monthly or every-other-month shift change would be more reasonable than the current weekly change employed by most companies).

11. Identify high-risk workers in dangerous jobs who are undergoing life stresses and help them slow down the accumulation of additional stress; i.e., don't allow a worker in the throes of family or marital strife to lose himself in his work via overtime or special assignments. Assign highly-stressed workers to less dangerous jobs.

### Psychiatric Techniques

Traditional psychiatric therapy, with its emphasis upon accurate diagnosis, psychotherapy, psychopharmacology of the major affective disorders, anxiety disorders, and psychosomatic states, continues to be the mainstay of the treatment program for most injury-related cases. However, newer techniques of behavioral modification, with anxiety-management training, muscle-relaxation protocols, biofeedback and hypnosis, and visual motor behavioral rehearsal, show promise in helping these special types of patients who are usually somatically preoccupied and consequently unresponsive to verbal interventions. Intensive psychiatric hospitalization may be necessary.

It is promising that the Commissioner of the West Virginia Workmen's Compensation Fund, his medical consultant, the administrative personnel and psychiatric examiners, are all working together to alleviate these problems. A policy of administrative review of high-risk cases, with referral from the central office for early psychiatric evaluation and treatment, has been instituted. However, it usually takes months for this to be implemented due to the lag in paper-work time. Some people in industry and safety are looking into the feasibility of an accident investigation form to be standardized in West Virginia. This was discussed at the recent Governor's Safety Conference.[6]

### Summary

This paper has reviewed the current status of the psychiatrically-impaired, injured worker here in West Virginia and the attempts of some people in industry, safety and the Workmen's Compensation Fund to improve early case-finding and psychiatric treatment. Two thirds of those psychiatric cases that ultimately present for disability benefits have never previously seen a psychiatrist. Surely some, and maybe half, of the current 12 million dollars annually disbursed by the West Virginia Workmen's Compensation Fund for psychiatrically-related disability could be saved if treatment were made available early.

The efforts of industry, safety and the Workmen's Compensation Fund are secondary and back-up in nature. For cost effective early case-finding and treatment, the major attitudinal and behavioral changes need to occur among the physicians treating compensation cases. Primary care physicians, industrial physicians and specialists can render a great service to their patients and can contribute to an effective preventive and rehabilitative program to work for their psychiatrically-impaired, injured-worker patients. The following guidelines can assist the physician in psychiatric screening:

1. While taking the *past medical history*, inquire about previous psychiatric hospitalizations, "nervous breakdowns," depression lasting more than two weeks, and any family history of nervous, mental or emotional problems.

2. During the *psychiatric review of systems*, determine whether the patient has any significant sleep disturbance, anxiety, depression, appetite change (increase or decrease), weight loss or gain, change of personality, memory or orientation problems, excessive worry or concern, and symptoms (especially pain) out of proportion to the physical findings.

3. Perform a *mental status examination*. Consult general textbooks of psychiatry and neurology such as those listed under "Additional Readings" below.

Suspect cases should be investigated further for emotional problems and, if appropriate, referred early for psychiatric intervention. After proper rehabilitation, before the disability process has become fixed and chronic, many of these patients can rejoin the work force. Even if full vocational rehabilitation is not possible, social functioning can be enhanced and suffering can be alleviated.

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# Spontaneous Rupture Of Esophagus (Boerhaave Syndrome): A Review Of Literature And A Case Presentation

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*A case of spontaneous rupture (Boerhaave syndrome) in the posterior wall of the lower end of the esophagus is presented. A review of the literature also is presented, with emphasis on incidence, etiology, clinical features, diagnosis, differential diagnosis and treatment of this syndrome.*

SEVERAL causes of esophageal rupture are recorded. In 1724, Hermann Boerhaave, a Dutch physician, described a spontaneous rupture of the esophagus,[1] now known as the Boerhaave syndrome. Boerhaave's patient died 18 hours after self-induced vomiting. At autopsy, Boerhaave found roast duck and olive oil in the pleural cavity, along with a transverse, rather than a longitudinal, linear tear in the distal esophagus. Due to a sudden increase in esophageal pressure, this tear through all layers of the lateral esophageal wall occurs on the left side in 90 per cent of the cases and on the right side in the remaining 10 per cent.[2] This most serious and rapidly lethal perforation of the gastrointestinal tract[3] has a near-100 per cent mortality within seven days without surgery and only a 70 per cent overall survival with surgical intervention.[4] Early diagnosis and appropriate treatment are important. In their large series, Abbott *et al*[5] noted that correct diagnosis was made within the first 12 hours in only 21 per cent of the surveyed cases.

### Case Report

A 52-year-old woman came to the emergency room on August 3, 1977, in a semicomatose condition. Past history revealed her to be a heavy drinker.

Physical examination revealed a blood pressure of 100/60 mm. of Hg.; a pulse rate of 120/minute; and a large jagged, lacerated wound over the right forehead. Bilateral rales were heard on lung bases.

Neurological examination revealed normal cranial nerve functions, normal muscle tone and strength, normal sensory tests and no pathological reflexes. Chest x-ray showed the presence of extensive interstitial and alveolar edema of both lung fields; however, there was no evidence of pleural effusion, pneumothorax or mediastinal air.

During the x-ray procedure, the patient became extremely cyanotic and vomited a large amount of "coffee ground" material. Her blood alcohol level was 0.103 per cent. She expired about one hour after admittance.

### Autopsy Findings

*Gross.* A large, recent, deep, triangular lacerated wound was seen over the right forehead; however, there was no evidence of skull fracture or intracranial hemorrhage. Several bruises on different parts of the body were discovered. The lower end of the esophagus showed congestion of mucosa and one through-and-through linear tear, 1.5 cm. long, in the posterior wall. The tear was covered with a fresh blood clot both inside and outside of the esophagus. The stomach was dilated and contained about 500 ml. of "coffee ground" fluid.

*Microscopic.* The superficial epithelium of the lower end of the esophagus was completely denuded and replaced by necrotic material containing acute inflammatory cells. A through-and-through tear was seen covered with fresh blood in the mucosal and serosal surfaces. Lungs revealed evidence of edema.

### Discussion

Rosoff and White[6] reported 16 cases of esophageal perforation from 1958 to 1973. Berry and Ochsner[7] reported only one case of Boerhaave syndrome in 31 cases of perforation of esophagus in their 31-year review. Keighley *et al*[8] recorded only 12 cases in 20 years. In their 157 cases, Derbes and Mitchell[9] reported, in the untreated group, 24-hour survival for 35 per cent, 48-hour survival for 11 per cent, and none alive at the end of one week. They also noted a survival rate of 64 per cent after surgical intervention. Curci and Horman[4] reported that spontaneous esophageal rupture was associated with a 70 per cent survival with surgical intervention.

A review of most of the literature indicates 100 per cent mortality in rupture of esophagus without surgery. Although rare, several cases of survival without surgery have been reported.[10-13]

Boerhaave syndrome is rare in adults and even more so in children; however, it has been reported in a neonate.[14-16] The highest incidence of this syndrome is seen in the 40- to 60-year age groups. Males are affected more often than females.[17-18]

The forceful, sudden vomiting after consumption of large amounts of alcohol remains the most common cause of esophageal rupture.[2] This syndrome also has been reported in many other instances: after severe coughing, straining at stool,[20] childbirth,[21] weight-lifting,[4] blunt trauma of an automobile accident,[19] seizures, forceful swallowing,[22] or the use of a drug like Antabuse.[4] Antabuse is responsible for violent vomiting if the subject consumes alcohol while on the drug. Certain mushrooms, containing a compound chemically similar to Antabuse, can cause rupture of esophagus.[4]

The act of vomiting is relatively passive as far as the esophagus and stomach are concerned. The pylorus closes with the onset of nausea. The esophagus and the upper portion of stomach then dilate while antiperistalsis propels the gastric contents toward the cardia and esophagus. The abdominal muscles and diaphragm contract violently, resulting in forceful ejection of gastric contents toward the upper portion of stomach and esophagus. Presumably due to alcohol, the pharynx is closed. The esophageal pressure rises, resulting in the bursting of the gastric contents through the lateral wall of the lower end of the esophagus.

Peptic esophagitis and hiatal hernia often predispose to esophageal rupture.[1,23,24] An esophagus with peptic esophagitis is three times more likely to burst than the normal since the superficial mucosa is the strongest layer.[4]

### Tears Penetrate Entire Wall

Tears are usually sharp and linear. They vary from 0.6 to 8.9 cm. in length, the average being 2.24 cm.[25] They penetrate the entire wall of the esophagus. Ninety per cent of the tears occur in the left wall, and 10 per cent in the right wall, of the lower end of the esophagus.[4] The reasons for the preponderance of tears in the left wall of the esophagus are (1) thinning of the muscularis, (2) segmental defects in the circular layer, (3) lack of adjacent support, and (4) anterior angulation of the esophagus at the left diaphragmatic crus.[17] Interestingly, the tears in neonates are more often in the *right* lateral wall of the lower end of the esophagus.[4]

Massive hemorrhage rarely is seen in Boerhaave syndrome. Should this occur, other sources of bleeding should be investigated. The fairly common Mallory-Weiss syndrome and the rare intraluminal dissection of the esophagus must be considered in evaluating patients. In Mallory-Weiss syndrome, the esophageal tears are superficial in the mucosa. The syndrome is manifested by profuse bleeding due to rich vascular plexus that is torn with the esophagus. In intraluminal dissection of the esophagus, a submucosal dissection creating a true and a false lumen, analogous to dissecting aneurysm of the aorta, is seen. Radiologically, "Stripe sign of Lowman"[26] also is seen in intraluminal dissection of the esophagus.

The initial triad of symptoms includes forceful vomiting, mild hematemesis, and substernal chest pain.[18] Patients sometimes experience left pleuritic chest pain radiating to the epigastrium, substernal area, or back. In one series,[18] four of 12 patients experienced pain in the left shoulder. Vomiting, dyspnea, signs and symptoms of shock, signs and symptoms of acute abdomen, and clinical manifestations of spontaneous pneumothorax may also be seen. In early stages of Boerhaave syndrome, the physical examination of the chest may be completely normal.

### Chest X-Ray Valuable

Probably the most common laboratory finding is leucocytosis. X-ray is the most valuable diagnostic modality for the syndrome. A simple chest x-ray with the patient in erect position yields the most information. Ninety per cent of cases have left-sided pleural effusion, and eighty per cent, left pneumothorax in addition to left pleural effusion.[27] Sixty-six per cent of cases have mediastinal air.[28] "V-sign of Naclerio" is another important x-ray finding which is easily overlooked.[29] X-ray of the esophagus with barium or water-soluble contrast material such as Gastrografin is positive in less than 75 per cent of cases, but a lack of extravasation does not exclude a perforation. Endoscopy plays a very limited role in the diagnosis of this syndrome.

Boerhaave syndrome has been confused with perforated peptic ulcer, acute myocardial infarction, pericarditis, pulmonary embolism, dissecting aneurysm of the aorta, spontaneous pneumothorax, acute pancreatitis, biliary colic, mesenteric vascular accident, and incarcerated diaphragmatic hernia (especially with perforation).[4]

Immediate operative intervention is the treatment of choice after vigorous volume replacement has begun. The preferred surgical approach is left thoractomy. The most common repair is the two-layer closure of the esophagus of Clagett and Barrett and drainage of the pleural space. A

nasogastric tube can be used for gastric decompression. In addition, antibiotics should be administered.

The present case is interesting in view of the occurrence of linear tear in the posterior wall of the lower end of the esophagus which is indeed an uncommon site for Boerhaave syndrome.

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# Lumbar Anterior Discectomy: Report of 458 Cases

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*A simple technique of anterior discectomy without interbody spinal fusion is described. A series of 458 cases which have been followed since 1965 is reported. A total follow-up of from six months to 13 years is recorded.*

*Between 1965 and 1970, 111 cases were treated with anterior discectomy and interbody spinal fusion. These were then compared with a series of 244 cases (between 1971 and 1978) treated with anterior discectomy using simple enucleation only. There were no differences in the results of these two groups.*

SINCE 1965, 458 patients have undergone disc excision by the anterior approach in operations performed by the author in one hospital. A technique will be described which has reduced operating time, postoperative morbidity, and has yielded a more satisfactory overall response. The follow-up has been from six months to 13 years.

In evaluating these patients, the author used rather rigid diagnostic criteria, including a thorough history and physical examination. Positive neurological findings were present and a lumbar myelogram was usually done. In the early years of this study, discography was performed but has now been abandoned. Discography probably is still of value in certain isolated cases. More recently, epidural venography has been added to the diagnostic armamentarium, and the early results appear to be encouraging.

Prior to undertaking the anterior approach, it is advisable for the orthopedist to review the anatomy of the abdomen, retroperitoneal space and the anterior aspects of the spinal column. It is also wise to have a competent abdominal surgeon to assist until one is thoroughly familiar with this region and its hazards. The lower three lumbar discs can be approached fairly easily. It is better to approach the first and second lumbar interspaces by way of conventional laminectomy.

### Technique

If the accepted diagnostic criteria for herniated nucleus pulposis are present and the patient has not responded to extensive medical management, surgery can be advised. Either a general or spinal anesthesia can be used. If the patient will accept it and there are no contraindications, a spinal anesthesia is preferable in most cases.

The patient is placed in the supine position with the kidney rest at the upper level of the iliac crests. The abdomen is then prepared and draped as for a laparotomy. For an isolated L/5 disc protrusion, a midline subumbilical incision can usually be used. For any higher levels, either alone or in combinations, a left rectus incision should be employed which can be extended upwards as needed. The skin is incised down to the anterior rectus sheath, while accurate hemostasis is obtained. The rectus sheath is then opened the full length of the incision. The recti muscles are gently separated with the index finger. It is helpful to place the operating table in some Trendelenburg position prior to proceeding. The lower edge of the posterior rectus sheath and peritoneum can now be secured between two clamps and the abdominal cavity opened with a knife the full incisional length. The abdomen should be inspected for any coincidental pathology. Unless the appendix shows signs of inflammation it is unwise to do a routine appendectomy. The latter is often a dirty procedure and contamination of the disc space is possible.

### Bowel Packed

At this point, the bowel must be packed well into the upper abdominal cavity and to both sides. In the very obese subject, the viscera may have to be placed on a moist laparotomy tape outside the abdominal cavity.

Ordinarily, the pulsating external iliac arteries can now be viewed. The slow peristalsis of the ureters can often be seen, but should always be located. The sacral promontory can be easily palpated now at the pelvic brim, and this is the landmark to be used in identifying the lumbar interspaces correctly. The fifth or last lumbar bar space is just beneath the bifurcation of the iliac vessels. As the palpating finger is brought upward over the sacral promontory, the soft spongy line of the intervertebral disc space can be located.

An incision can now be made in the posterior peritoneum. With a little care the prevertebral areolar tissue can be pushed to the side by very gentle use of a dissecting sponge. One or more vertically-situated veins will usually be encountered running down over the fifth intervertebral space and sacral promontory. These can be gently dissected and ligated. The ligament covering

the disc space is now visible. It has a dull, yellowish color, and the spongy texture can be differentiated from the vertebral bony substance. With a long-handled knife and a #15 blade, a small window measuring about a centimeter on a side can be cut in the annular ligament through which the nucleus pulposis can be approached. A long, straight pituitary rongeur is used to lift the windowed-segment of ligament out. A small, curved, long-handled curette is gently introduced into the disc space. After a little practice, a certain tactile ability is acquired, and the fragments of the soft nucleus can be felt without much trouble. These are gently curetted and lifted out with the straight pituitary rongeur. Care is taken not to penetrate the posterior annulus or the annular ligament around the periphery: a simple enucleation is usually sufficient. It will be a revelation to the surgeon at the visibility afforded by this approach. A good clean job can be done and, in most cases, the surgeon can see directly into the cavity from which the nucleus pulposis has been removed. The cavity can then be packed snugly with some absorbent hemostatic material. No fusion need be done unless there is a spondylolisthesis or some other problem in which stablization is desired.

### No Need For Fusion

If the entire disc is not removed there is no more need to do a fusion than there is following a routine enucleation via laminectomy.

If the fourth disc is to be removed, one simply counts upward one interspace from the fifth or last level. Another incision is made in the posterior peritoneum somewhat to the left of the midline. This disc space is more difficult to uncover due to the presence of the great vessels of the abdomen. There are also numerous vertebral veins encountered in this area. After penetrating the posterior peritoneum, the palpating index finger can locate the artery. The fairly thin-walled vena cava is directly under it. This vascular bundle can usually be gently retracted toward the midline by inserting a vein retractor behind the exploring index finger. The assistant's retractors can then be placed laterally and the remaining tissue pushed away. Rarely is it necessary to ligate any of the vertebral vessels since there is a natural space here which one can usually locate with a little practice. The characteristic soft bulge of the disc is always the landmark sought. It can be uncovered and cleaned off as described above for the fifth interspace. The rest of the removal is the same as with the fifth or lower-most disc. One can also go on upwards one interspace to reach L/3 in the rare cases when it is required.

The posterior peritoneum is not closed. If there is some postoperative retroperitoneal oozing it will be absorbed more readily if the posterior peritoneum is left open. The anterior peritoneum and posterior rectus sheath are then closed in the usual manner. The anterior rectus sheath is closed separately. The fat may then be closed in two or three layers and then the skin.

A catheter is inserted preoperatively. Postoperatively, it is also a good idea to put in a naso-gastric tube for the first 24 hours. One of the most troublesome complications is the bowel dilatation which sometimes occurs; however, this can often be prevented with a naso-gastric tube and by keeping the patient on intravenous fluids only. This can be stopped after the first 24 hours and the patient gradually started on oral liquids.

The patient is made ambulatory in the first 24 hours, gradually at first, and then continuing daily one or more times as tolerated. Sometimes in the obese patient, or when a three-level discectomy has been performed, an abdominal binder is used for a few days postoperatively.

After the first 24 hours, the diet can be progressed from clear liquids to full liquids and then to a soft, regular diet as the patient can tolerate.

The patient is ready for discharge in one week at which time the sutures are removed. He is maintained on a restricted-activity program for six to eight weeks and can usually be returned to duty thereafter.

### Results

The results have been very simply classified as *good*, *fair*, or *poor*. The term good indicates a patient who is returned to full activity with no pain. Fair denotes a patient who is returned to full activity but who may have some discomfort requiring treatment from time to time. Poor is a patient who is still unrelieved and cannot be returned to work.

Of 458 patients, 306 were classified as good; 117 were classified as fair; and 35 as poor. The overall good-fair analysis of this series is approximately 92 per cent.

Dehiscence numbered one. Abdominal distention is the most frequent complication of this procedure, but can be relieved by naso-gastric suction. We have experienced no retroperitoneal bleeding nor any other complications.

The average operating time is 45 minutes to one hour, as compared to at least two to six hours for laminectomy.

From 1965 until 1971, routine interbody spinal fusion was done. In 1965, 1966 and 1967

a prepared commercial embryonic beef bone was used in 30 cases; however, this substance was subsequently taken off the market. As of this writing no complications from this group of cases have been noted and their overall result is not different from the rest of the series.

Interbody spinal fusions using autogenous iliac bones were done in 111 cases of anterior discectomy between 1965 and 1970. Since 1971, no routine interbody spinal fusions have been done except in a few cases of spondylolisthesis or some other problem in which a stabilized condition was desired. This latter group of patients numbered 244.

The good-fair percentage of both of these groups is 92 per cent. This will indicate that there is very little difference in the results of treating these patients with anterior discectomy with or without interbody spinal fusion.

### Conclusion

In conclusion, a simple technique of anterior discectomy without interbody spinal fusion has been described. A series of 458 cases are reported which have been followed, since 1965, from six months to 13 years.

Between 1965 and 1970, 111 cases were treated with anterior discectomy and interbody spinal fusion. These were then compared with a series of 244 cases between 1971 and 1978 treated with anterior discectomy only. There was no difference in the results of these two groups.

It would seem, then, that selected cases of lumbar disc protrusion can be satisfactorily treated by anterior discectomy using simple enucleation without the necessity of interbody spinal fusion.

**TABLE**

| Year | Diagnosis L/5 | L/4 | L/4-L/5 | L/3-4-5 | Spondy-lolis-thesis | Patients | Methods Retro. | Trans. | Fusions Beef Bone | Auto. | Ages | M. | F. | Good | Fair | Poor |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1965 | 24 | 1 | 3 | 0 | 2 | 30 | 15 | 15 | 9 | 21 | 24-26 | 19 | 11 | 24 | 5 | 1 |
| 1966 | 18 | 2 | 4 | 1 | 2 | 27 | 0 | 27 | 22 | 5 | 22-65 | 17 | 10 | 21 | 6 | 0 |
| 1967 | 10 | 6 | 10 | 4 | 0 | 30 | 0 | 30 | 7 | 23 | 25-62 | 21 | 9 | 19 | 8 | 3 |
| 1968 | 11 | 2 | 2 | 2 | 1 | 18 | 4 | 14 | 0 | 18 | 24-68 | 9 | 9 | 12 | 5 | 1 |
| 1969 | 16 | 2 | 3 | 0 | 0 | 21 | 3 | 18 | 0 | 21 | 20-57 | 10 | 11 | 16 | 3 | 2 |
| 1970 | 17 | 7 | 3 | 3 | 0 | 30 | 0 | 30 | 0 | 23 | 25-59 | 14 | 16 | 20 | 6 | 4 |
| 1971 | 24 | 3 | 0 | 0 | 0 | 27 | 0 | 27 | 0 | 3 | 16-60 | 11 | 16 | 18 | 7 | 2 |
| 1972 | 23 | 2 | 6 | 0 | 0 | 31 | 0 | 31 | 0 | 1 | 21-67 | 16 | 15 | 22 | 6 | 3 |
| 1973 | 22 | 3 | 4 | 1 | 0 | 30 | 0 | 30 | 0 | 0 | 25-72 | 14 | 16 | 22 | 6 | 2 |
| 1974 | 47 | 2 | 7 | 0 | 1 | 57 | 0 | 57 | 0 | 3 | 17-69 | 27 | 30 | 41 | 14 | 2 |
| 1975 | 36 | 1 | 5 | 0 | 0 | 42 | 0 | 42 | 0 | 1 | 18-70 | 23 | 19 | 21 | 16 | 5 |
| 1976 | 38 | 3 | 5 | 0 | 0 | 46 | 0 | 46 | 0 | 0 | 18-70 | 28 | 18 | 31 | 11 | 4 |
| 1977 | 50 | 0 | 0 | 0 | 0 | 50 | 0 | 50 | 0 | 0 | 19-64 | 24 | 26 | 27 | 17 | 6 |
| 1978 | 9 | 5 | 4 | 1 | 0 | 19 | 0 | 19 | 0 | 0 | 23-72 | 9 | 10 | 12 | 7 | 0 |
| | 345 | 39 | 56 | 12 | 6 | 458 | 22 | 436 | 38 | 119 | 16-72 | 242 | 216 | 306 | 117 | 35 |

Retro.—Retroperitoneal
Trans.—Trans Abdominal
Auto.—Autogeneous
M.—Male
F.—Female

# Medical Grand Rounds

**From the West Virginia University Hospital**

Edited By
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## Exercise And The Heart

*Discussant:*
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*Chronic, strenuous exercise may be beneficial in decreasing the development of coronary heart disease. After symptomatic atherosclerotic heart disease is present, exercise has not been shown to be of benefit in prolonging life or preventing recurrence of myocardial infarction.*

ENGAGING in regular exercise as a part of a daily routine has become a fad, if not much more, for millions of Americans. Books proclaiming the value of exercise have become best sellers, and every conceivable benefit has been ascribed to exercise, especially to running. The American College of Sports Medicine[1] has recently published a position statement on the frequency, intensity, and duration of training which is necessary to develop and maintain cardiorespiratory fitness in adults.

Most people would agree that exercise makes you feel better, but what I would like to examine is the question: "Does regular, strenuous exercise increase longevity?" Perhaps, more specifically, the question should be, "Does regular exercise decrease the risk of developing clinically-significant coronary artery disease?"

Since many occupations involve minimal physical exertion, most people must resort to other activities to obtain any strenuous exercise. Since running is so popular at the present time, many of my comments will deal with it.

I would like to start by describing briefly two cases from the literature. The first[2] describes a man who ran competitively for 49 years, winning the Boston Marathon seven times and last completing a marathon at the age of 66. He died at the age of 70 of carcinoma of the rectum. At autopsy his heart was found to be at the upper range of normal in size, without evidence of myocardial infarction and with less than 30 per cent obstruction of the coronary arteries, which were estimated to be two to three times normal size.

The second case[3] involved a 49-year-old congressman who died of an apparent myocardial infarction while running. He had run six Boston Marathons, was thin, ran at least 30 minutes daily, and had not smoked for 25 years. These two cases represent the extreme positions in the thinking regarding the value of exercise.

I will discuss some epidemiologic data regarding physical activity and development of heart disease, and then look at some mechanisms by which exercise might alter beneficially the development of coronary artery disease.

### Epidemiology

In 1966, a study of the development of ischemic heart disease in 667 London busmen was published.[4] During the five years of study, 47 developed ischemic heart disease. There was a significant difference in development of ischemic heart disease according to job: the drivers had nearly twice the risk of developing ischemic heart disease than the conductors. Hypertension was also a strong risk factor, but even when controlling for blood pressure the drivers still had about double the risk of developing ischemic heart disease. The drivers, however, had higher lipids and were more obese[5] than the conductors.

In 1970, Paffenbarger[6] reported a study relating the work activity of longshoremen to their risk of dying from ischemic heart disease. He studied 3,263 longshoremen over a period of 16 years. He compared cargo handlers (calculated to use 925 more calories daily than did workers in any other job) with persons in all other jobs. Besides activity level, he also evaluated elevated systolic blood pressure, cigarette smoking, and obesity. He was able to show increased risk of death with sedentary occupation, as well as with hypertension, cigarette smoking, and obesity. When controlling for each of the other factors, there was still a decreased risk of death in the more active group of men.

This protective effect of exercise continued for at least 22 years.[7] Inactivity was considered to be a risk factor approximately equal to cigarette smoking and hypertension, and a greater risk factor than either diabetes, elevated serum cholesterol, or obesity.

A recent study by Paffenbarger[8] examined the level of physical activity as a risk factor for development of ischemic heart disease in college graduates. He studied 16,936 Harvard male alumni, 35 to 74 years of age, over a six- to 10-year period. He concluded that physical activity at all levels gave some protection against myocardial infarction, with a plateau of protective effect above excess calorie expenditure of 2,500 Kcal per week. Participation in athletics as a student carried no protective effect unless an exercise program was continued after graduation.

### Exercise After Infarction

The person who, after suffering a myocardial infarction, recovers, starts a running program and goes on to complete a marathon is an unusual individual. It has been estimated[9] that only 0.5 per cent of persons who have a myocardial infarction would be capable, if motivated, to train for and run a marathon in less than five hours. This rare occurrence, however, does not answer the question—"Does physical activity post-infarction exert a beneficial effect on longevity or productivity?"

A review[10] of eight studies which evaluated exercise versus non-exercise in postinfarction patients concluded that exercise did not seem to affect the re-infarction rate or return to gainful employment. The studies had not been randomized, and factors such as cigarette smoking and level of blood pressure were not controlled. The percentage of persons who quit the exercise programs was very high.

A representative study by Rechnitzer[11] studied men who were less than 51 years of age, at least five months post-myocardial infarction, not diabetic and with a diastolic blood pressure of less than 120 mm Hg. There were 68 subjects and 71 matched controls. The selection was not random, although the controls did meet the study criteria. The level of exercise was not specified, and no attempt was made to match subjects by blood pressure, presence or absence of angina or number of cigarettes smoked. In spite of this biased selection process, there was only a marginally significant benefit to the subjects who exercised.

To summarize, chronic strenuous exercise may be beneficial in decreasing the risk of developing coronary heart disease. However, after symptomatic coronary disease is present, exercise has not been shown to be of benefit in prolonging life or preventing recurrence of myocardial infarction.

### Cardiovascular Adaptations

Considering that exercise may prevent artery disease, I would like to discuss cardiovascular adaptations to exercise and then discuss several mechanisms by which exercise might retard the development of coronary artery disease.

Numerous parameters are observed to be altered with exercise.[12] Among these are: decreased resting heart rate, lower heart rate with submaximal exercise, increased stroke volume, cardiac enlargement, increased maximum oxygen consumption and increased myocardial contractility.

The decrease in heart rate, both at rest and with submaximal exercise, is not completely understood. It may be due to an increase in parasympathetic activity to the heart and a decrease in resting sympathetic activity, but this does not explain its beneficial effect. Increased stroke volume is observed both at rest and with exercise. Cardiac enlargement is found in highly-trained athletes. In those whose activity is mostly isotonic (runners or swimmers), this is largely due to an increase in ventricular end-diastolic volume, whereas in those whose exercise is primarily isometric (wrestlers and weight-lifters), enlargement is due mainly to increased left ventricular wall thickness. These changes may well allow faster running or lifting greater weights, but it is difficult to explain how these changes would prevent coronary artery disease.

The increase in maximum oxygen consumption is the best indicator of effective training, and implies a greater utilization of oxygen by skeletal musculature at maximum stress. It is associated with an increased A-V oxygen difference in skeletal vascular beds and, also, lower lactate levels during exercise in trained subjects. The mech-

anism[13] of the increased oxygen utilization may be due to an increase in mitochondrial number in trained muscle. Myoglobin concentration in muscle is increased in training, and myoglobin increases the rate of oxygen diffusion through the cytoplasm. Additionally, metabolic pathways are altered by conditioning, such that trained individuals derive more energy from fat and less from glycogen.

An increase in myocardial contractility has been shown[14] using systolic time intervals to compare sedentary males and trained cross-country runners. A highly significant decrease in the preejection period (PEP) and the PEP/LVET (Left Ventricular Ejection Time) was shown in the trained individuals.

### Possible Protective Effects

Possible mechanisms by which exercise may prevent coronary artery disease include the following: effects on coronary vasculature, decreased blood pressure, effects on clotting, effects on serum lipids, decrease in psychological stress and improvement in glucose tolerance.

### Effects on Coronary Vasculature

Numerous animal models have been used to study changes in collateral circulation induced by exercise. McElroy *et al*[15] studied a group of rats which were forced to swim 60 minutes/day, five days a week for five to six weeks. After this, the left main coronary artery was surgically occluded. When compared to a group of control non-exercised rats, the exercised rats had a significantly smaller infarction and a larger capillary bed.

The question of whether exercise promotes the development of coronary collateral circulation was examined by Eckstein.[16] He studied 90 dogs, in which he produced a narrowing in a coronary artery by ligating the vessel. He then exercised half the dogs while the other half were rested. After six to eight weeks he studied the dogs by measuring the retrograde flow through the constricted vessels as a measure of development of collaterals. The degree of collateral formation was directly proportional to the degree of constriction, but there was an increased development of collateral arteries with exercise compared to constriction alone. He postulated that in humans with natural narrowing of coronary arteries that exercise would promote development of collaterals.

However, this has not been demonstrated in investigations involving human subjects. Ferguson and colleagues[17] studied 14 patients over a period of 13 months, during which time the subjects exercised by walking on a treadmill three times a week. These patients all had clinically-significant coronary artery disease, as demonstrated by coronary angiography. The patients had a decrease in their serum triglyceride level and body weight with exercise, but there was no effect on the coronary arteries or collaterals.

In another study by Selvester and colleagues[18] which was poorly controlled, there was an apparent slower progression of coronary artery disease in the more active subjects.

The data regarding collateral circulation is best summarized by Nanette Wenger:[19] "Physical training programs offer a number of advantages to the patient with coronary atherosclerotic heart disease: enhanced development of a coronary collateral circulation does not appear to be one of these benefits."

### Reduction of Blood Pressure

Hypertension is a well-known risk factor in coronary artery disease. Numerous studies have attempted to evaluate the effects of short-term and chronic exercise on blood pressure.

Ressl[20] studied 10 middle-aged males, with an average blood pressure of 182/100 mm Hg. Subjects exercised 30 minutes at 70 per cent maximal heart rate, five times weekly for four weeks. After conditioning, there was no change in the resting blood pressure, but with a given level of exercise, the blood pressure rose significantly less after exercise than before.

A study [21] of patients with borderline hypertension was done, using two hours of exercise once a week, and 10 to 15 minutes of daily calisthenics at home for a six-month period. This study showed significant lowering of the resting blood pressure.

Perhaps the best study reported was done by Boyer and Kasch.[22] who studied 23 males with essential hypertension and 22 normotensive males. All were exercised, using running sessions two times/week at 70 per cent maximum heart rate for 30 to 35 minutes each session for six months. No change in anti-hypertensive medication was made. A significant decrease in the blood pressure of the hypertensive subjects and very little change in the normotensive patients were noted.

The data seem fairly clear in showing beneficial effects of exercise on lowering of blood pressure, which in turn should translate to a beneficial effect on development of coronary artery disease. The mechanism by which this is accomplished is, however, far from clear.

A European study[23] compared the response of trained athletes (basketball players and track and field athletes) and untrained subjects to intravenous infusions of catecholamines. The blood pressure response was not significantly different with epinephrine, but with norepinephrine infusion, the trained subjects had a smaller elevation in both systolic and diastolic blood pressure. It was speculated that during strenuous exercise, plasma levels of norepinephrine levels are high, and by repeated bouts of exercise the individual could adapt to this stimulus with less response.

Another mechanism may involve the sodium loss through perspiration while exercising. Sweat loss during marathon running has been estimated to be between 0.89 and 1.81 L/hr.[24] At this rate, one to three grams of sodium could be lost in an average day's training. Since the role of excess sodium in the development and maintenance of hypertension is so well established, this loss of sodium could be related to decreased blood pressure.

#### Effects on Clotting

The role of platelet aggregation and spontaneous thrombosis in the causation of ischemic heart disease has not been elucidated. However, exercise does have effects on this system which are of interest.

Rosing[25] and colleagues studied 14 healthy, reasonably fit subjects. There was a significant increase in fibrinolytic activity, which was related both to duration and intensity of exercise, and which returned to baseline values after 60 minutes of rest.

In response to exercise,[26] the platelet count increases, up to twice normal, but returns to baseline with 10 to 15 minutes of rest. There is also an increase in platelet adhesiveness with exercise, and it has been speculated that this may be a factor in the development of myocardial infarction during exercise. In trained individuals, the thrombocytosis with exercise is much less, thus implying a possible benefit to chronic exercise.

#### Effects on Serum Lipids

The role of serum lipids as a risk factor in ischemic heart disease was discussed earlier this year.[27] As previously noted, high HDL cholesterol is correlated with less ischemic heart disease, and chronic exercise increases HDL cholesterol,[28] whereas total serum cholesterol is minimally affected by exercise. Triglycerides are lower in regularly-exercising men; part of this may be due to diet and degree of body leanness. The effect of exercise on HDL cholesterol may be one of the most beneficial changes, in terms of risk reduction for coronary artery disease.

#### Decrease In Psychological Stress

The Type A personality has been characterized as having more aggressiveness, more ambition, a competitive drive and a chronic sense of time urgency.[29] Type B personality is simply a more relaxed person. In the Western collaborative group study, it was shown that the Type A personality is a definite and strong risk factor for development of coronary artery disease.

Many studies have tried to show a decrease in stress or reaction to stress with exercise, hoping to modify the risk of coronary artery disease.

Folkins and Amsterdam[30] reviewed a large number of these studies. Using such measurements as the MMPI, surface electromyography, and Catell's 16 Personality Factor Questionnaire, a consistent and significant reduction in stress was found to follow periods of exercise.

One study[31] compared college students; one group participated in a 24-week jogging course, the other in light games such as archery. Using the Multiple Affect Adjective Check List, the men showed no significant change in psychological fitness. The women who chose jogging, however, showed a decrease in anxiety, depression, and sleep-restlessness indices, as well as an increase in the self-confidence index. The women who voluntarily chose jogging, however, showed significantly more anxiety and depression than the controls in the pretraining period, but there was no pretraining difference in the males.

Another study[34] looked at middle-aged men, normals versus post-infarction patients. Half of each group exercised and the other half served as controls. The exercise sessions were carried out over a 24-week period. The cardiac patients who exercised showed the greatest improvement on the psychological profile.

The mechanism of a decrease in the stress reaction with exercise is not clear. Ismail and Trachtman[33] speculated that it might be partly due to an increase in the brain circulation and a greater delivery of glucose to the brain. They also felt it was partly due to the effect of confronting and meeting a challenge, and thereby gaining a sense of accomplishment, independence and control over personal destiny.

#### Improvement in Glucose Tolerance

Middle-aged men with an abnormal oral glucose tolerance test are at risk of developing clinical diabetes, and are also at greater risk for developing coronary artery disease.[34] A group

of men, aged 47 to 49, was studied to determine the effects of physical training on oral glucose tolerance tests. The patients with chemical diabetes were otherwise similar to the controls. After three months of exercise, the response to the oral glucose tolerance test was significantly improved. This was achieved without a decrease in body weight.

Ruderman and colleagues[35] showed an improvement in the intravenous glucose tolerance test after exercise in men with adult onset diabetes mellitus. This was accomplished after six months of physical training, again with no loss of weight. The lack of increase in serum insulin suggested an increased insulin sensitivity.

In summary, exercise may be beneficial in the reduction of risk of development of coronary artery disease. It is certainly not a panacea, and is certainly not the only way to reduce the risk. If, however, the patient is so inclined, I think a physician can, with a fair degree of scientific backing, advise him or her to exercise on a regular basis.

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## Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 1/2 by 11 in.) white paper. Wide margins (at least 1 1/4 in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

# *A message from . . .*

# *The President*

## THE AMA—WORKING FOR YOU

It was in 1847 that 250 doctors met in Philadelphia to form a national organization—the American Medical Association—whose goal has remained unchanged since that time: to promote the science and art of medicine, and the betterment of the public health.

On July 22-26, the AMA's House of Delegates meets in Chicago to work further toward this objective. The West Virginia State Medical Association will be represented in the House deliberations, as it has been for many, many years.

Since its beginning, the AMA has provided leadership which has led to excellence in medical education and the high quality of medical care in this country. It has increasingly become the advocate for physicians' rights—an activity ever more critical because of mounting federal government and other pressures for tighter regulation and control of medicine, and interference with the provision of care.

Those of you who are AMA members can be justifiably proud of what your support has helped the AMA accomplish. If you are not a member, shouldn't you be?

Robert D. Hess M.D.

Robert D. Hess, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

**FEDERAL REGULATIONS**

While Quetzalcoatl, the legendary Toltec Prince, ate his favorite treat of spiced hummingbird tongues, he might have wondered, "Why doesn't everyone love spiced hummingbird tongues?"

We might be guilty of the same type of thinking when we wonder, "Why doesn't everyone despise bureaucracy?" It could be simply that many have not yet directly experienced bureaucracy. Oh yes, they have heard of it and, as a matter of fact, it is almost fashionable to talk disparagingly about it or to make jokes about it, even in Washington. But the depth of awareness on the subject is to about the same degree as that of a sophomore in high school talking knowingly of the terrible dangers involved in the generation of electricity in atomic reactors. Tomorrow, the topic will be Jane Fonda's next moral sermonette.

The comprehension of a subject sometimes varies with one's point of view.

Bertrand Russell once made this point rather clearly. He noted that given the problem of describing a martini, a chemist will start with its appearance and color, name its molecular weight, its boiling and freezing points and perhaps list the various elements contained in the specimen. Someone else will drink several and ask to be led to the podium.

They say in sports that nothing beats experience. In Medicine we have had some of the same reverence for wisdom that comes only with years in practice. But a new dimension in experience is developing in Medicine as a result of our exposure to the governmental regulatory process. We are developing a wisdom we would as soon be without.

In the business part of Medicine, physicians have for years suffered the same sort of bureaucratic harassment from regulators as all businessmen. For years, we have sympathized with and even joined in their resultant complaints.

In more recent years, Medicine has found itself singled out for special treatment from the likes of FTC, FDA, HSA and HEW. Each operates through the regulatory process as a separate small tyranny.

Perhaps there is truth in the old adage that bad conditions must get worse before they can get better. Another is that it is always darkest before the dawn. Hope often arises from unlikely sources.

A recent study on the effects of federal regulations shows that: 15,452 pages of the Federal Register last year contained nothing but new federal regulations; regulations add $2,000 to the cost of an average house; $666 is added to the price of every new car to comply with regulations; at least $22 of every hospital bill is attributable to federal regulations; the cost to every man, woman and child in the United States to bring about compliance to regulations is $450.

Hummingbird tongues traditionally have been in notoriously short supply. That bleak situation is unlikely to improve. The supply situation in federal regulations is much brighter. Production problems seem to have been solved. Those regulations on the shelf and in the pipelines assure the opportunity for everyone to have a taste.

Now, for more, please read the editorial which follows.

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**SUBSIDIZED CARE**

Everywhere one turns, there is a new set of proposed regulations or controls. In fact, it isn't even necessary to turn and/or look around. The suggested rules just pop up on all sides like the pesky dandelions in your lawn in the spring.

A recent example, picked easily at random, is a set of proposed rules published in the May 7 Federal Register by the U. S. Department of Health, Education and Welfare. Basically, the rules would establish a new method of reimbursement for hospital review under Professional Standards Review Organizations (PSROs).

They would set up area-wide budgets for PSROs and individual budgets for hospitals, but

in any event would establish new reimbursement ceilings.

All providers of health and medical care already are most familiar with a myriad of regulations setting ceilings; promoting outdated profiles; and fostering other statistical monstrosities regulating payment for services. With virtually no exception, such reimbursement patterns, at state as well as at federal levels, have failed miserably to keep pace with inflation and other trends of the times.

It's tragic that they are leading to a two-tiered system of medical and health care in this country, as discussed in the lead editorial in the June issue of *The Journal.*

Equally important and frustrating, this maze of regulatory mumbo-jumbo more often than not finds our "benevolent" bureaucracy promising the moon on the one hand; and then, on the other, asking those providing essential and even life-sustaining services to subsidize federal and state programs at the obvious expense of other patients.

As we also noted in June, if programs are provided, they should be funded. No other approach makes any sense at all. One veteran practicing physician observed at a recent gathering: "Most of these so-called services and programs are just expensive and troublesome pieces of junk. We always have been able over the years to take care of those who needed our help. We just did it, knowing a lot of times that there would be little or no payment. But we didn't worry about that, either."

It's of course illogical to believe that we can go back to the good old days in the face of the complex society in which we now must live. But it's not too much to demand that a great deal more horse sense and judgment go into the way programs and services are designed and promoted by the bureaucracy.

That holds true for a catastrophic or other health insurance plan, as much as for anything else.

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**RESPONSE TO A CALL**

"Mr. President, we have responded to your call," the little pamphlet begins. It then proceeds to outline how concerted efforts over the past year and a half have resulted in a holding down of medical care increases. The special message, prepared by the American Medical Association, has gone to every member of Congress.

The health care industry voluntarily slowed the cost increase by almost three percentage points, to 12.8 per cent, in 1978; and has a goal of reducing the rate of increase to 11.6 per cent in 1979. But here comes the "bottom line." That goal can be met only if inflation in the general economy is brought under control.

The pamphlet flatly calls the Carter Administration's hospital cost containment bill "flawed legislation." Passage of such a measure would mean a rationing of health care to the American people, and a reduction in the quality of care. In addition, such legislation would undermine the voluntary effort by the American Medical Association, American Hospital Association and Federation of American Hospitals which stands as the only successful private sector response to President's Carter's call for voluntary restraints on costs.

Hopefully, those in the Congress—and many others—will find time to read the AMA's new information effort. The pamphlet hits hard at the kind of data that is the key to the nation's inflation difficulties—but pushed under the rug by too many individuals.

The Carter proposal has been hailed as the Administration's major step in bringing inflation under control. But it doesn't address the root causes of inflation, as the AMA so well has emphasized—government fiscal and monetary policy, increased costs mandated by regulatory programs and uncontrolled energy costs. The Administration, the AMA has insisted, "has established the hospitals as a public target to divert attention from its failing inflation policies."

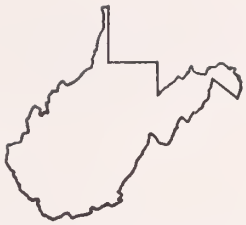
A quick look at the March Consumer Price Index data is sufficient to back up that position. The all-items CPI index was up a full 1 per cent in March, with food and beverages up 0.9 per cent; housing costs also up 0.9 per cent—and energy costs up a whopping 2.6 per cent.

Hospital room charges, on the other hand, were up 0.6 per cent; prescription drugs, also 0.6 per cent, and physicians' services up by 0.5 per cent.

The public, the AMA has concluded—in addition to continuing to pay the spiralling costs of inflation as it regularly buys its food, purchases gasoline and pays its bills for light and heat—should not also be made to suffer by the Administration's misguided attack on hospitals as the major cause of inflation.

Enactment of a mandatory program for complex regulatory control would make a sham of the President's call for voluntary restraints and less government regulation—for everyone, apparently, except hospitals.

# GENERAL NEWS



## Editor, Gastroenterologist Convention Speakers

Addresses by a physician magazine editor and a gastroenterologist from the West Virginia University Medical Center in Morgantown will complete the program for the 112th Annual Meeting of the West Virginia State Medical Association.

The convention will be held August 22-25 at the Greenbrier in White Sulphur Springs.

Michael J. Halberstam, M. D.

William E. Anderson, M. D.

Dr. Arthur A. Abplanalp of Charleston, Chairman of the Program Committee, announced that Michael J. Halberstam, M. D., of Washington, D. C., Editor-In-Chief of *Modern Medicine*, will deliver the keynote Thomas L. Harris Address during opening exercises on Thursday, August 23, at 9 A. M. This annual address was established with a bequest in the will of the late Dr. Thomas L. Harris, Parkersburg surgeon who served as President of the Association in 1945.

Speaking during the third general session, a "Symposium on Liver Disease," Saturday morning, August 25, will be William E. Anderson, M. D., Professor, Department of Medicine, and Chairman, Division of Gastroenterology, at WVU. His subject will be "Alcoholic Diver Disease."

Annual Meeting activities will get under way with a 2 P. M. meeting of the Association's Executive Committee on Tuesday, August 21: the usual pre-convention meeting of the Council at 9:30 A. M. on Wednesday, and the opening session of the House of Delegates at 3 P. M. on Wednesday.

Doctor Halberstam, a native of New York City, was named to his present magazine post in 1976. Having maintained a private practice in internal medicine and cardiology since 1964, he also is Assistant Professor of Clinical Medicine at George Washington University.

Doctor Halberstam is Contributing Editor for Medical Economics and Assistant Editor for Diagnosis News. He is the author of the following books: *The Pills in Your Life* (1972); *A Coronary Event* (with Stephen Lesher) (1976), and *The Wanting of Levine* (1978).

### Serves As Consultant

He was graduated from Harvard University and received his M. D. degree in 1957 from Boston University. He completed a residency in medicine at the Mary Fletcher Hospital in Burlington, Vermont, and a fellowship in cardiology at George Washington University.

Certified by the American Board of Internal Medicine in 1970, he has served as consultant for Goodwill Industries, VISTA (also first Medical Director), Bio-Dynamics, Inc. in Boston, and the Appalachian Regional Commission.

His articles have appeared in a number of publications, including The American Scholar, New York Times Magazine, Medical Economics, Medical Insight, Trans-Action, The New England Journal of Medicine, and Annals of Internal Medicine.

### Previously in Minnesota

Doctor Anderson has been on the WVU faculty since 1960, previously having served as Instructor in Medicine at the University of Minnesota Medical School and Assistant to the Chief of Medicine at the Veterans Administration Hospital at Minneapolis.

He currently serves as consultant in gastroenterology at the Veterans Administration Hospital in Clarksburg and the Ohio Valley Medical Center in Wheeling.

Doctor Anderson is a Diplomate of the American Board of Internal Medicine and the Subspecialty Board of Gastroenterology.

A native of Mankato, Minnesota, he was graduated from Gustavus Adolphus College in St. Peter, Minnesota, and received his M. D. degree

in 1954 from the University of Minnesota. He interned at St. Luke's Hospital in Duluth, Minnesota, and completed a residency in medicine at the University of Minnesota and the Veterans Administration Hospital in Minneapolis.

### Ascites, Viral Hepatitis

Speaking in addition to Doctor Anderson during the third general session will be, as announced previously, Harry H. LeVeen, M. D., Chief, Surgical Service, Veterans Administration Hospital, Brooklyn, New York; and Professor of Surgery, State University of New York, on "Surgical Treatment of Ascites," and Saul Krugman, M. D., Professor of Pediatrics, New York Medical Center, New York City, "Viral Hepatitis: New Developments."

Dr. Hoyt D. Gardner of Louisville, Kentucky, who will be installed as President of the American Medical Association during the AMA House's Annual Meeting in Chicago this month, will address the first House session.

The speakers and topics for the first general session Thursday morning will be "Perspectives of Clinical Problems with Drugs"—Leighton E. Cluff, M. D., Princeton, New Jersey, Vice President, The Robert Wood Johnson Foundation; "Drug Levels: Fact and Fancy"—W. Leigh Thompson, M. D., Ph.D., Co-Director of Clinical Pharmacology and Critical Care Medicine, University Hospitals of Cleveland; and "Psychotropic Drug Interactions"—Frank J. Ayd, Jr., M. D., Director of Professional Education and Research, Taylor Manor Hospital, Baltimore; and Professor of Psychiatry, WVU Charleston Division.

### Second General Session

The speakers for the second general session Friday morning will be Eric L. Radin, M. D., new chief of orthopedics at WVU (see story on Doctor Radin's appointment elsewhere in the General News section of this issue of *The Journal*), whose subject will be "Update on Total Joint Replacement;" Robert Bettinger, M. D., Assistant Professor of Anesthesiology, WVU Medical Center, Morgantown, "The Pain Clinic: Unique Approach to an Old Problem;" and Michael E. Crouch, M. D., Assistant Professor of Medicine, WVU Medical Center, Morgantown, "The Use of the Newer Non-Steroidal Anti-Inflammatory Drugs in Treatment of Musculoskeletal Disease."

The general Convention format once again will provide opportunities for breakfast, luncheon and other meetings of a scientific and/or business nature, of the various sections and specialty organizations affiliated with the Medical Association. It is anticipated that most of these again will be scheduled on Friday (August 24).

Plans also call for the usual President's Reception on Wednesday evening, August 22, and the Saturday evening reception for new officers. The latter will follow the second and final House of Delegates session at 2:30 P. M. on Saturday which will bring the inauguration of Dr. Stephen D. Ward of Wheeling as President to succeed Dr. Robert D. Hess of Clarksburg.

### Program Committee Members

Serving with Doctor Abplanalp on the 1979 Program Committee are Drs. Marshall J. Carper, South Charleston; Cordell de la Pena, Clarksburg; George J. Hill II, Huntington; Robert H. Waldman, Morgantown, and Stephen D. Ward, Wheeling.

The Annual Meeting of the Auxiliary to the State Medical Association, with Mrs. D. Sheffer Clark of Huntington in charge as the Auxiliary's President, again will run concurrently with the Association's Convention.

The complete convention program, including the schedule and speakers for related meetings, physicians who will serve as moderators, and other details, will appear in the August issue of *The Journal*.

## 49 Of WVU Medical School Faculty Promoted

Forty-nine of the 138 faculty members at West Virginia University who were promoted or granted tenure, effective July 1, are affiliated with the School of Medicine.

Their promotions, based upon performances in teaching, research or public service, were approved by the West Virginia Board of Regents and announced by Jay Barton, Vice-President and Provost for Academic Affairs, and Charles E. Andrews, M. D., Vice-President for Health Sciences, who conducted detailed reviews within each college or school before recommendations to the board.

The Board of Regents also granted emeritus status to Nicholas W. Fugo, Margaret Higgins Sanger Professor of Family Planning and Reproductive Physiology, who is retiring after 19 years of service.

Advanced to the following ranks are:

Moutassem B. Ayoubi, Clinical Associate Professor, Pediatrics; James Bryant, Clinical Associate Professor, Surgery; Dennis L. Burech, Clinical Associate Professor, Pediatrics; Marshall J. Carper, Professor, Family Practice; Thomas W. Crosby, Associate Professor, Neurology;

Carolyn A. Crutchfield, Professor, Physical Therapy; Yadin David, Research Assistant Professor, Anesthesiology: Dinesh Doshi, Assistant Professor, Anesthesiology; Morteza K. Elyaderani, Associate Professor, Radiology; David G. Frazer, Associate Professor, part-time, Physiology and Biophysics; Roger L. Frome, Assistant Professor, Surgery; Claudia Goodwin, Assistant Professor, part-time, Radiology; Douglas R. Gnepp, Assistant Professor, Pathology; Charles Haislip, Clinical Associate Professor, Surgery.

Alex Hendrick, Assistant Professor, part-time, Medicine; Robert D. Hess, Clinical Associate Professor, Family Practice; John Hicks, Assistant Professor, Medicine; Brian Houston, Assistant Professor, Medicine; Ellen E. Hrabovsky, Associate Professor, Surgery; Barbara D. Ingersoll, Associate Professor, Behavioral Medicine and Psychiatry; Rabindran Israel, Clinical Associate Professor, Pediatrics; Paul John Jakubec, Clinical Professor, Pediatrics; Jesse J. Jenkins III, Associate Professor, Pathology; David A. Kappel, Clinical Associate Professor, Surgery: John M. Krall, Professor, Community Medicine: James C. W. Lai, Associate Professor, Radiology.

E. Noel McIntosh, Professor, Obstetrics and Gynecology; Richard G. McKinley, Clinical Assistant Professor, Obstetrics and Gynecology; Robert Bruce Martin, Associate Professor, Surgery and Mechanical Engineering and Mechanics; Robert Martin, Assistant Professor, Medicine: John E. Mateer, Assistant Professor, Neurology; Michael G. Mawhinney, Professor, Surgery; Phyllis M. Miller, Assistant Professor, Behavioral Medicine and Psychiatry: Barbara Moidel, Assistant Professor, Surgery; Martha D. Mullett, Associate Professor, Pediatrics; Albert Paine, Clinical Associate Professor, Surgery: Ruth A. Panepinto, Clinical Assistant Professor, Behavioral Medicine and Psychiatry: John J. Petronics, Associate Professor, Physical Therapy, with tenure.

Robert S. Pope, Associate Professor, Anatomy, with tenure; Ujjal Singh Sandhu, Clinical Assistant Professor, Obstetrics and Gynecology; Gunter Schwarzbart, Clinical Associate Professor, Surgery; Sheila Shah, Associate Professor, Pathology; Roy Shannon, Assistant Professor, Medicine; George A. Shawkey, Clinical Associate Professor, Pediatrics: Danna Swan, Assistant Professor, Family Practice; Roland J. Weisser, Associate Professor, Family Practice, with tenure; Loraine T. Withersty, Clinical Assistant Professor, Obstetrics and Gynecology; John Wolf, Clinical Assistant Professor, Pediatrics; David B. Yelton, Associate Professor, Microbiology, with tenure.

# Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Principles of Clinical Electrocardiography, 10th Edition*, by Mervin J. Goldman, M. D. 415 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Annual Review of Neuroscience, Volume 2*, W. Maxwell Cowan, Editor, and Zach W. Hall and Eric R. Kandel, Associate Editors. 555 pages. Annual Reviews, Inc., 4139 El Camino Way, Palo Alto, California 94306. 1979.

*Correlative Neuroanatomy & Functional Neurology, 17th Edition*, by Joseph G. Chusid, M. D. 464 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Clinical Concepts of Immunology*, edited by Robert H. Waldman, M. D. 263 pages. Price $19.50. The Williams & Wilkins Company, Baltimore, Maryland 21202. 1979.

*Growth Standards in Children*, by Herbert H. Pomerance, M. D., with a contribution by John M. Krall, Ph. D. 225 pages. Price $25. Harper & Row, Publishers, Inc., P. O. Box 7777 — RO200, Philadelphia, Pennsylvania 19175. 1979.

## Doctor Pomerance Authors Textbook On Growth

*Growth Standards in Children*, a new textbook, has been written by Dr. Herbert H. Pomerance, Professor of Pediatrics, Charleston Division, West Virginia University Medical Center; and Chairman of the Department of Pediatrics, Charleston Area Medical Center.

Published by Harper & Row, the book is the focal point of a 20-year project. To establish modern standards for growth, Doctor Pomerance measured, recorded and analyzed the growth rate of 3,995 healthy and well-nourished children during that time period.

The book provides an improved system for evaluating a child's normal growth pattern and for diagnosing aberrations from the norm.

## AMA House Of Delegates Meets July 22-26

The annual meeting of the House of Delegates of the American Medical Association will be held July 22-26 in Chicago.

The official call for the meeting was published in the June 1 issue of the Journal of the American Medical Association. The call includes a listing of the 274 members of the House of Delegates.

Richard E. Flood, M. D.

Frank J. Holroyd, M. D.

The delegates represent each of the states, plus the Canal Zone, District of Columbia, Guam, Puerto Rico, Virgin Islands, national medical specialty societies, resident physicians, medical students, medical schools, the medical corps of the Army, Navy and Air Force, Public Health Service and Veterans Administration.

The West Virginia State Medical Association's two Delegates to the AMA House of Delegates are Drs. Richard E. Flood of Weirton and Frank J. Holroyd of Princeton, with Drs. Harry S. Weeks, Jr., of Wheeling and Jack Leckie of Huntington as Alternate Delegates.

The July annual meeting will consist only of House of Delegates sessions. The traditional scientific program of postgraduate courses, lectures, symposia, exhibits and other events will be presented at the AMA Winter Scientific Meeting in San Antonio, Texas, January 12-15, 1980. The annual convention of 1978 at St. Louis was the last to combine a meeting of the House of Delegates and the Scientific Program.

Hoyt D. Gardner, M. D., of Louisville, Kentucky, will be inaugurated as President of the AMA, succeeding Tom E. Nesbitt, M. D., of Nashville, Tennessee. Presiding at the House sessions will be William Y. Rial, M. D., Swarthmore, Pennsylvania, Speaker of the House.

The House meets twice annually, in the summer and in mid-winter.

## Doctor Carter Named President Of State Heart Affiliate

New officers and members of the Board of Directors of the West Virginia Affiliate of the American Heart Association recently were elected at its annual meeting in Wheeling.

William H. Carter, M. D., of Charleston was elected President, and Sheila Wakeley, R. N., of Clarksburg was elected Chairman. Other officers for 1979-80 are Neill E. Bush, D. V. M., Elkins, Vice Chairman; Bernadette Page, M. D., Charleston, President-Elect; Creel S. Cornwell, Jr., M. D., Clarksburg, Vice President; Robert Hieronymus, Charleston, Treasurer; and Yvonne King, Glenville, Secretary.

The following individuals were elected to serve one-year terms on the Board of Directors: Robert J. Halonen, Ph. D.; Robert C. Hieronymus, David H. Schmid and Harold Selinger, M. D., all of Charleston; William J. Echols, M. D., Jerry Furbee and William M. Schmidt, M. D., all of Huntington; Walter Massey and Salvatore Pecoraro, M. D., Beckley; William

**New officers and Council members recently were elected by the West Virginia Chapter of the American College of Surgeons during its spring meeting at the Greenbrier in White Sulphur Springs. They, along with a guest, are, from left, front row, Drs. Walter E. Klingensmith, Beckley, President; William A. Altemeier, Cincinnati, President of the American College of Surgeons, and Robert L. Bradley, Huntington, President Elect; second row, from left, Drs. James P. Boland, Charleston, and Roger E. King, Morgantown, Council members; Fernando G. Giustini, Wheeling, Past President, and Alvin L. Watne, Morgantown, Secretary-Treasurer; third row, from left, Drs. Donald E. McDowell, Clarksburg, and Clemente C. Diaz, Richwood, Council members, and William E. Gilmore, Parkersburg, immediate Past Governor.**

Lemley, D. O., Lewisburg; James Irish, Ph. D., Morgantown; and Larry Wheatley, Parkersburg.

Elected to serve three-year terms were: Creel S. Cornwell, Jr., M. D.; Josephine Fultz, R. N., Clarksburg; Singanallur Jagannathan, Ph. D., Morgantown; Nora Jarrell, Huntington; Anita Laurin, Lewisburg; Margaret Savage, Vienna; Arch C. Thompson, M. D., Elkins, and Yvonne Stover, Beckley.

Special awards were presented to Dennis Godfrey of Morgantown for service as Chairman of the Board for 1977-79, and to Abnash C. Jain, M. D., of Morgantown as the outgoing President. The 1980 annual meeting and scientific sessions will be held May 23-24 in Charles Town.

## AMA Regional CME Meeting Planned In Virginia

Thirteen courses ranging from cardiopulmonary resuscitation (CPR) to physicians' practice management will be offered during the American Medical Association Regional Continuing Medical Education meeting to be held September 14-16 in Williamsburg, Virginia.

All 13 courses meet the criteria for Category 1 credit on an hour-for-hour basis for the Physician's Recognition Award of the AMA.

The following courses are scheduled:

*Friday, September 14*—"Basic Life Support—Cardiopulmonary Resuscitation (CPR)," "Common Neurological Problems," "Acid-Base, Fluid & Electrolyte Balance," "Office Dermatology," "Basic Electrocardiography (Friday, Saturday and Sunday, 8 A. M. to 3 P. M. each day), "Advanced Cardiac Life Support—Cardiopulmonary Resuscitation (CPR) (Friday, 8 A. M. to 3 P. M.; Saturday, 8 A. M. to 4:30 P. M., and Sunday, 8 A. M. to Noon);

*Saturday, September 15*—"Human Sexuality: Genesis & Therapy of Sexual Dysfunctions," "Office Orthopedics," "Office Gynecology & Endocrine Problems," "Allergy and Immunology," "Office Pulmonary Function Testing & Chronic Obstructive Lung Disease;"

*Sunday, September 16*—"Modern Management of Congestive Heart Failure," and "Physician's Practice Management—Managing the Business Side."

The headquarters hotel for the meeting will be Holiday Inn 1776 at the Colonial Williamsburg Conference Center.

Registration and other information, including fees, was to be contained in an AMA mailing to West Virginia physicians on June 25, with another mailing scheduled for July 23.

## Orthopedic Surgeon At Harvard Joins WVU Faculty

Eric L. Radin, M.D., an internationally-known orthopedic surgeon and investigator formerly located at Harvard University, has joined the West Virginia University Medical Center faculty as chief of orthopedics.

Doctor Radin has won six national fellowships or other awards during the past half dozen years, and is the author or co-author of more than 90 journal articles or sections of books on his specialty.

Eric L. Radin, M. D.

In addition to his recent teaching and research at the Harvard Medical School and Massachusetts Institute of Technology, he was in the private practice of orthopedic surgery at Mt. Auburn Hospital in Cambridge, Massachusetts.

"I am delighted that the search committee was able to recommend for this position such an outstanding teacher and investigator," said John E. Jones, M.D., Dean of the WVU School of Medicine.

Doctor Jones noted that Doctor Radin is the first Chairman of what became the Department of Orthopedic Surgery, effective July 1. What were formerly major divisions of the Department of Surgery have now become separate departments under the reorganization.

"Not only will Doctor Radin operate first-rate educational, research and service programs, but he will bring substantial research grants with him to West Virginia University," Dean Jones said.

Doctor Radin also will recruit additional faculty members to enlarge and enhance the orthopedic program, the Dean said.

### Annual Meeting Speaker

One of his first public appearances in the state will be during the 112th Annual Meeting of the State Medical Association to be held August 22-25 at the Greenbrier in White Sulphur Springs. He will speak during the third general

session on Friday morning, August 24, on "Update on Total Joint Replacement."

Doctor Radin received his bachelor's degree from Amherst College and his medical degree from Harvard in 1960. He did additional postgraduate work at MIT.

His orthopedic residency training was done at Massachusetts General Hospital-Childrens Hospital, and he later was teaching fellow in orthopedic surgery at Harvard, and an orthopedic surgeon and co-chief of the arthritis clinics at Andrews Air Force Base Hospital.

From 1969 to 1973, he won two national fellowships from the King Trust, was a Fellow of the Gebbe Foundation and the International Society for Surgery, Orthopedics and Trauma, was a Carl Berg Travelling Fellow, and won the Kappa Delta national award in 1973.

### Joined Harvard in 1968

He joined the Harvard faculty as an Instructor in Orthopedic Surgery in 1968, and was a postdoctoral fellow at Massachusetts General from 1968 to 1970. He was Associate Professor at Harvard and a lecturer at MIT immediately before coming to WVU.

Doctor Radin has served on the executive committees of the Orthopedic Research Society and the Society for Biomaterials, on the Orthopedic Implants Committee of the American Society for Materials Testing, and the Bioengineering Committee of the American Academy of Orthopedic Surgeons.

He is the author of a book on biomechanics published by John Wylie and Sons.

In addition to his career in orthopedic research, teaching and practice, Doctor Radin also is well-known for his work in the field of osteoarthritis.

Dr. Anthony G. DiBartolomeo, Chairman of Rheumatology in the WVU School of Medicine, noted that Doctor Radin did two years of postdoctoral fellowship study with the National Institue of Arthritis and Metabolic Diseases under the National Institutes of Health.

### Osteoarthritis Article

"Doctor Radin recently published in 'Clinics in the Rheumatic Diseases,' one of the leading journals, what amounted to a review of the subject of osteoarthritis, and he's also known for his research into the process of how healthy cartilage changes into degenerating or damaged cartilage."

"It's quite unusual to have a leading clinician and researcher in a major field like orthopedics who is also outstanding in an allied field," Doctor DiBartolomeo said. "We're looking forward to collaborating on subjects of common interest in rheumatology and orthopedics."

## Wheeling Clinic To Sponsor September Seminar

Speakers from some eight states will participate in Update '79, a two-day scientific seminar in medicine and surgery to be held by Wheeling Clinic September 21-22 at Oglebay Park in Wheeling.

Registration will be limited to 150 physicians.

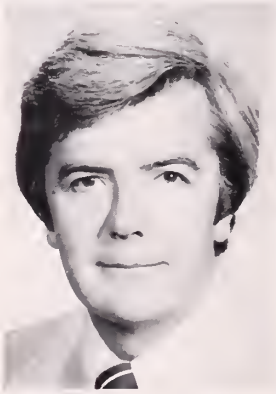
The Friday, September 21, program will include lectures on recent advances in neurology and psychiatry, obstetrics, hypertension and hyperalimentation; a variety of workshops, and current-concept sessions on orthopedics, urology, ophthalmology, dermatology and vascular surgery.

Frank J. Ayd, Jr., M. D.

Internal medicine will be featured on Saturday, with updates on antibiotics, infectious diseases, chemotherapy, arthritis and rheumatism, nephrology and cardiology, plus a Fulton Memorial lecture by Frank J. Ayd, Jr., M. D., of Baltimore. Doctor Ayd is Director of Professional Education and Research at Taylor Manor Hospital in Baltimore; and Professor of Psychiatry, West Virginia University Medical Center, Charleston Division.

A nationally-known figure is expected to speak during the Saturday evening banquet.

The program has been approved for 16 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association; and also is expected to be approved for 16



Andrew Whelton, M. D.

Marc A. Pohl, M. D.

hours of credit by the American Academy of Family Physicians.

Other speakers will include Drs. William P. Steffee, Director of Clinical Nutrition Unit, and Assistant Professor of Medicine, Boston University Hospital; Gerald D. Timmons, Chief of Neurology, Akron (Ohio) Childrens Medical Center; Martin F. Hayes, Assistant Professor of Surgery, Hahnemann Medical College and Hospital, Philadelphia; Edward L. Quinn, Chairman, Department of Infectious Diseases, Henry Ford Hospital, Detroit; Robert S. Zeiders, Director of Rheumatology, Carle Clinic Association, Urbana, Illinois;

Andrew Whelton, Associate Professor of Medicine, Johns Hopkins Hospital, Baltimore; E. Alan Paulk, Jr., Associate Clinical Professor of Medicine, Emory School of Medicine, Atlanta; Marc A. Pohl, Department of Hypertension and Nephrology, Cleveland Clinic; Paul S. Porter, Chief, Department of Dermatology, University of Pittsburgh, and Robert G. Selker, Chief of Neurosurgery, Montefiore Hospital, Pittsburgh.

The registration fee of $75 will include admission to luncheons, evening entertainment and dinners for registrants and their spouses. Registrations may be sent to Update '79 Committee, Wheeling Clinic, Wheeling 26003.

Registrants are responsible for their own lodging; however, a block of rooms is being held at Wilson Lodge in Oglebay Park. For reservations there, contact Justina Gabbert at (304) 242-3000.

## Medical Association Announces Scholarship Winners

Four 1979 scholarships for students entering West Virginia medical schools have been awarded by the State Medical Association.

Dr. John Mark Moore of Wheeling, Chairman of the Association's Committee on Medical Scholarships, announced these winners who will receive grants of $1,500 for each of their four years at the medical school noted:

Janet Elaine Cogar

Lester Labus

Robert N. Shobe

Sandra Lee Tabor

Janet Elaine Cogar of Flatwoods (Braxton County), Lester Labus of Barboursville (Cabell County), and Robert N. Shobe of Burlington (Jackson County), all accepted at the West Virginia University School of Medicine; and Sandra Lee Tabor of Switzer (Logan County), who will enter the Marshall University School of Medicine.

Miss Cogar, daughter of the late Robert F. Cogar and Mrs. Cogar, holds a B. S. degree in biology from Glenville State College.

Labus graduated from Marshall University, with a B. S. degree in chemistry. He is the son of Mr. and Mrs. Michael P. Labus of Barboursville.

Shobe is the son of Mr. and Mrs. Joseph N. Shobe of Burlington. He holds a B. S. degree in physics from WVU.

Miss Tabor is a graduate of WVU, with a B. A. degree in biology. She is the daughter of the late John L. Tabor and Mrs. Tabor.

These most recent scholarships bring to 52 the number awarded by the Medical Association to deserving students since it started its program in 1958. Until 1974, the Association awarded two scholarships annually. It then increased the number to four with a goal of encouraging greater numbers of young physicians to establish practice in West Virginia.

As a result of House of Delegate action during the 1978 Annual Meeting of the Association at the Greenbrier in White Sulphur Springs, and in the wake of a recommendation by the Association's Committee on Medical Scholarships, the annual scholarship value was increased from $1,250 to $1,500, effective with the four 1979 recipents.

Under provisions of their scholarship agreement, recipients must agree to practice in West Virginia for four years following graduation and completion of any postgraduate training and/or military obligations.

The Committee on Medical Scholarships conducted interviews of applicants from this fall's first-year WVU and MU Schools of Medicine classes June 1-2 in Parkersburg. Other Committee members are Drs. R. L. Chamberlain of Buckhannon, Marshall J. Carper and Kenneth G. MacDonald, Sr., both of Charleston; James T. Hughes of Ripley, John M. Daniel of Beckley. William E. Gilmore of Parkersburg, Thomas J. Holbrook of Huntington, and Clark K. Sleeth of Morgantown.

## Institute For Salaried Physicians Planned In August By AMA

An Institute for Salaried Physicians will be held by the American Medical Association's Department of Negotiations on August 10-11 in Denver at the Brown Palace Hotel.

This institute is tailored for physicians employed by medical schools, public and private hospitals, medical centers, medical clinics, HMOs, and other health care organizations. The program will provide salaried physicians with experience with negotiation, the implementation of individual and group employment agreements, methods of organizing for effective action, and the development of negotiating techniques and skills.

The faculty will include J. Paige Clousson, J. D., who, prior to joining the AMA as Director of the Department of Negotiations, was engaged in the active practice of labor law with a Chicago firm; Seymour J. Burrows, Executive Secretary of the Chicago Newspaper Publishers' Association, and Director of Industrial Relations, Maremont Corporation, Chicago; Norman A. Lieberman, M. D., an active leader and president of the physicians group in negotiating a contract with The Group Health Association, Washington, D. D.'s largest prepaid health plan in 1978, and Paul A. Simms, an employee of the EDS-Federal Corporation (EDS-F). EDS-F is the Medicare and Medicaid fiscal agent for several states.

The fee is $150 for AMA members; $200, nonmembers. For additional information, contact AMA Department of Negotiations, 535 North Dearborn Street, Chicago, Illinois 60610; or telephone (312) 751-6647.

# *Medical Meetings*

July 22-26—AMA House of Delegates Annual Meeting, Chicago.

**Aug. 22-25—112th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.**

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 6-8—National Breast Cancer Conference (Am. Cancer Society), New York City.

Sept. 12-16—Medical and Chirurgical Faculty of the State of Maryland, New Orleans.

Sept. 14-16—AMA Regional CME Meeting, Williamsburg, Va.

Sept. 20-21—Hal Wanger Family Practice Conference, Morgantown.

Sept. 21-22—Update '79 (Wheeling Clinic), Wheeling.

Sept. 21-23—Central Assn. of Obstetricians & Gynecologists, White Sulphur Springs.

Sept. 23-25—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Sept. 25-27—Kentucky Medical Association, Louisville.

Oct. 4-6—Am. Neurological Assn., St. Louis.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-17—Indiana State Med. Assn., Indianapolis.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 19—WVU Cleft Palate Teaching Day, Morgantown.

Oct. 21-27—Am. College of Gastroenterol., Anaheim, Calif.

Oct. 22-26—ACS (Clinical Congress), Chicago.

Nov. 1-3—Pa. Med. Society, Camp Hill.

Nov. 1-4—Med. Society of Va., Hot Springs.

Nov. 4-7—Southern Med. Assn., Las Vegas.

Nov. 4-8—Am. College of Chest Physicians, Houston.

Nov. 5-8—Am. Assn. for the Study of Liver Disease, Chicago.

Nov. 5-9—Am. Academy of Ophthalmol., San Francisco.

Nov. 16-17—Med. Society of Delaware, Wilmington.

Nov. 29-30—Am. College of Chemosurgery, Chicago.

**1980**

**Jan. 25-27—13th Mid-Winter Clinical Conference, Charleston.**

April 18-20—Scientific Assembly, W. Va. Chapter, AAFP, Morgantown.

April 20-23—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

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# Pyeloduodenal Fistula

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*A case of a pyeloduodenal fistula is reported in a patient with a staghorn calculus and a renal cortical abscess. The usual cause of such fistulas is pyogenic infection, often with associated calculi. Renal tuberculosis and malignancy are other possible etiologies. The primary pathology is invariably in the kidney, rather than the gastrointestinal tract. A correct diagnosis may be made by retrograde pyelography or upper GI series. Rarely is the IVP diagnostic. The present case illustrates the use of nephrotomography and percutaneous pyelography. Recommended treatment is nephrectomy and primary closure of the duodenum.*

Fistulas between the right renal pelvis and the duodenum are unusual. This report describes such a communication. Aspects of diagnosis and treatment are discussed.

### Case Report

A 62-year-old, white female was admitted with a three-month history of fever, pyuria and right flank pain. She described seven episodes of right renal colic during the previous 13 years. A slightly tender, 15 x 8 cm., right flank mass was noted. Her urine was cloudy and foul-smelling, with 55-60 WBC/HPF. The urine grew proteus mirabilis.

IVP (Figure 1) showed a staghorn calculus of the right renal pelvis. There was no opacification of the right renal collecting system. Nephrotomogram (Figure 2) demonstrated a lateral cortical mass. Retrograde pyelogram (Figure 3) revealed a fistula between the right renal pelvis and the duodenum. Under fluoroscopic control, a Teflon sheath needle was inserted into the lateral cortical mass. Fifteen cc. of thick pus, which grew proteus mirabilis, was obtained. Injection of contrast material confirmed the communication to the post-bulbar duodenum (Figure 4).

The patient underwent a right nephrectomy through a retroperitoneal approach. There was a marked inflammatory process involving the right kidney and perinephric fat. The duodenum was mobilized. The defect in the duodenum was visualized and closed in two layers.

The postoperative course was uneventful. The patient was begun on clear liquids on the eighth postoperative day. She was discharged on the eleventh postoperative day tolerating a regular diet without difficulty.

### Comments

A variety of underlying processes may give rise to a pyeloduodenal fistula. The primary pathology is invariably in the kidney, rather than the gastrointestinal tract. Renal tuberculosis was a common etiology in the earliest case reports, but since the advent of modern anti-tuberculous drugs, only a single pyeloduodenal fistula has been attributed to tuberculosis.[1] There have been two reports of renal malignancy associated with this complication.[2,3] Most of the previously reported cases have been attributed to pyogenic infection.[4,5,6,7,8] Often, there have been associated calculi.[9,10,11,12]

Pyeloduodenal fistulas that were asymptomatic have been noted as incidental findings at surgery or autopsy. The usual presentation is that of fever, pyuria and flank pain. The fistula is most often demonstrated by retrograde pyelography. Occasionally, it can be demonstrated by upper GI series.[7,10,1] Rarely is the IVP diagnostic. The present case illustrates the use of nephrotomography and percutaneous pyelography.

The best management of a pyeloduodenal fistula is nephrectomy and primary closure of the duodenum. Either a transperitoneal[6] or retroperitoneal approach may be employed. In the

present case, the retroperitoneal approach, in the face of an active suppurative process, avoided contamination of the abdominal cavity. This approach still afforded adequate exposure for repair of the retroperitoneal duodenum.

Attempts to spare the kidney when dealing with this fistula have not been successful. Of five patients treated without nephrectomy, two died, two developed recurrent fistulas, and one had persistent symptomatic infection of the involved kidney.[4,8,13]

**Figure 1. IVP showing staghorn calculus of right kidney.**

**Figure 2. Nephrotomogram shows a thick-walled, lateral cortical mass with a radiolucent center.**

**Figure 3. Retrograde pyelogram with opacification of duodenum.**

**Figure 4. Percutaneous study showing communication of the cortical abscess with the renal collection system and duodenum.**

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## Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 1/2 by 11 in.) white paper. Wide margins (at least 1 1/4 in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

# The Non-Invasive Peripheral Vascular Laboratory: Lower Extremity Occlusive Disease

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*A well-equipped, non-invasive peripheral vascular laboratory can provide useful, accurate and objective data with minimal risk and expense. It can provide information not obtainable by angiography, and has proven useful in the evaluation of the patient with claudication, rest pain or ischemic foot lesions. The non-invasive technique allows safe, repetitive preoperative, intraoperative, and postoperative studies. Periodic, non-invasive testing provides an ideal method of monitoring the patient who is treated nonoperatively, or for repeated evaluation of the effects of arterial reconstruction.*

*The instrumentation and clinical applications of the non-invasive peripheral vascular laboratory are discussed.*

HISTORICALLY, the evaluation of a patient with suspected lower extremity arterial occlusive disease is based on a careful history and physical examination. Unfortunately, these time-honored methods can be inaccurate and even misleading. In order to decide upon the proper medical and surgical management of the patient with arterial disease, an accurate, objective and reproducible method of evaluation is required.

Arteriography meets these criteria well and has become essential in the preoperative evaluation of patients with arterial disease. The development of arteriography has paralleled and, in fact, fostered, advances in vascular surgery.[1] Despite past and recent improvements in technique, arteriography has inherent risks and limitations. Although the mortality rate in large centers is low, 0.05 per cent,[2] the morbidity remains significant, up to 14 per cent.[3,4,5] These risks, combined with poor patient acceptance and high cost, make angiography impractical either as a screening procedure or as a means of repeated evaluation of the effects of operative or non-operative therapy.

The limitations of angiography are also important. Although biplane angiography can accurately localize areas of stenosis or occlusion, information essential to the vascular surgeon, it provides no data as to the functional significance of these lesions. This information, however, often identifies those patients who would benefit most from arterial reconstruction.

A well-equipped, non-invasive peripheral vascular laboratory can provide useful, accurate and objective data with no risk to the patient. It can provide critical information not obtainable by physical examination and angiography alone. As stated by the Inter-Society Commission for Heart Disease Resources:

> "It is the judgment of this Committee that considerable confidence can now be placed in instrumentation and in the procedures which can be utilized for the objective study of the peripheral vascular system. Proper application of these techniques in a well-supervised vascular laboratory or in the physician's office will result in a more precise definition of vascular symptoms, better identification of patients who may benefit from surgical or medical therapy, and ultimately, a reduction in medical care costs."[6]

The information provided by the peripheral vascular laboratory will complement that provided by angiography, but the advantages of the non-invasive technique are numerous. Patients with a history suggestive but atypical of arterial disease can be evaluated easily and arterial disease, if present, identified. The risks and expense of arteriography can thereby be avoided in many cases. Repetitive, objective, non-invasive testing can be used to evaluate the effectiveness of a non-operative exercise program or to monitor the results of vascular reconstruction as well as the progression of disease elsewhere in the arterial system. Non-invasive peripheral vascular laboratory testing can be performed quickly and easily by a propertly-trained nurse or technician on an outpatient basis at minimal expense and inconvenience to the patient.

### Equipment

*Pulse Volume Recorder.* The pulse volume recorder (PVR) is able to detect instantaneous changes in volume in any given segment of an extremity. A blood pressure cuff is placed on the extremity or digit and the cuff is then inflated with a given volume of air until a specific (low) pressure is reached. During each cardiac cycle,

arterial inflow increases the volume of the limb, producing proportional pressure changes in the surrounding cuff. These pulsatile changes are recorded as a waveform which represents the instantaneous variation in arterial volume during each cardiac cycle. Although not identical to absolute blood flow, properly interpretated, these waveforms yield important information with respect to the presence or absence, as well as the level and degree, of occlusive disease.

*Doppler Ultrasound.* Sound waves reflected from a moving object will be shifted in frequency (Doppler effect), and this shift is directly related to the velocity of the moving objects (i.e., blood cells). A continuous-wave, bi-directional Doppler is the type most applicable for peripheral vascular evaluations.

The Doppler probe emits and receives ultrasound waves. When placed over an artery it will yield information concerning (1) the presence or absence of flow, (2) the relative velocity of flow, and (3) the direction of flow. The reflected waves may be converted to audible sound via headphones or a speaker, or may be recorded as a waveform on a strip-chart recorder. Doppler ultrasound is the most sensitive non-invasive method of determining systolic blood pressure and evaluation of the resultant waveform; its slope, height, and reversal provide information regarding the presence and location of arterial occlusive lesions.

In the lower extremity, segmental systolic pressures are obtained by placing blood pressure cuffs on the thigh, below the knee and at the ankle, with the Doppler probe over the posterior tibial artery. By placing the probe directly over the femoral, popliteal and posterior tibial arteries, flow-velocity waveforms at each level are obtained.

*Treadmill.* The familiar treadmill is invaluable in the assessment of arterial occlusive disease. A slope of 12 degrees and a speed of 1.4 mph are relatively standard. After pulse volume recordings and segmental systolic pressures are obtained at rest, the patient is asked to walk until claudication necessitates rest, or for a maximum of five minutes. This, in itself, provides a quantitative and reproducible measurement of the degree of functional disability. Immediately after exercise, pulse volume recordings and segmental pressures are repeated. A significant change in the pulse volume waveform and a fall in ankle pressure (more precisely the brachial/ankle pressure ratio) are consistent with, and proportional to, arterial insufficiency.

**Clinical Uses**

*Claudication.* The symptom of claudication has always been dependent upon the subjective history given by the patient. The non-invastive peripheral vascular laboratory can now provide accurate, objective data concerning not only the presence of true claudication, but its severity as well. Pulse volume recordings and segmental systolic pressures are obtained just prior to, and immediately after, treadmill exercises. If the patient's symptoms are not reproduced, significant functional disability is unlikely. If the patient becomes symptomatic, yet waveforms and segmental pressures are relatively unchanged, the etiology of the patient's pain is probably *not* due to arterial insufficiency, and other causes (i.e., neurogenic claudication, orthopedic disease) should be investigated. By comparing the waveforms and the pressures at the various levels (thigh, calf, ankle), localization of the functionally-significant lesion is possible.

*Rest Pain.* The presence of foot pain at rest is especially difficult to evaluate and may be due to trauma, peripheral neuropathy or arterial insufficiency. Resting Doppler ankle pressures are normal or nearly normal in patients without significant arterial occlusive disease, but are markedly decreased in patients with arterial ischemia. Diabetics with significant arterial occlusive disease will often have high ankle pressures because of arterial medial calcinosis; however, pulse volume recordings and arterial systolic waveforms will accurately detect arterial insufficiency if present. In view of the fact that patients with diabetes frequently have neuropathic and traumatic pain, this ability to measure quantitatively the degree of arterial ischemia is especially important.

*Foot Lesions.* One of the most difficult decisions to make is whether amputation is necessary in the patient with an arterial foot lesion. Arteriography is often of little predictive value in these patients. Pulse volume recordings and ankle systolic pressures can provide valuable information. Raines[7] suggests that healing of an ischemic foot lesion is likely if ankle pressures are greater than 65 mm. Hg (90 mm. Hg in diabetics) and unlikely if ankle pressure is less than 55 mm. Hg (80 mm. Hg in diabetics). Similarly, good correlation between the pulse volume recording waveform and likelihood of healing has been found.

*Amputation Site.* Once amputation is decided upon, the level of amputation is critical. A below-knee (BK) amputation is preferable, but in some patients the severity of atherosclerotic disease may prevent healing at this level, and a

second procedure with re-amputation at the above-knee (AK) level is required. Predicting whether or not a BK amputation will heal is difficult, even with biplane angiography. Non-invasive peripheral vascular laboratory studies yield the most reliable predictive information. Direct popliteal artery Doppler pressures above 80 mm. Hg have been shown to be associated with probable healing of a BK amputation. Segmental systolic pressures and pulse volume waveforms have also been quite useful parameters. Should these indices suggest that healing of a BK amputation is unlikely, serious consideration should be given to an AK amputation as the initial procedure.

*Intraoperative Monitoring.* The use of intraoperative pulse volume recordings is becoming an increasingly popular and reliable method of monitoring flow during revascularization procedures. Often, the task of confirming the adequacy of reconstruction is dependent upon the intraoperative subjective evaluation of distal pulses and capillary flow, usually by a relatively-inexperienced observer. The pulse volume recorder produces objective, standardized evidence of distal flow. An improved waveform (compared to preoperative studies) indicates increased flow and confirms patency of the more proximal anastomosis, eliminating the need for intraoperative arteriography. Absence of an adequate waveform implies inflow occlusion and should prompt the surgeon to search immediately for the cause.

*Nonoperative Follow-up.* Many patients with arterial occlusive disease are not suitable candidates for vascular reconstruction. Patients with claudication who are not functionally disabled may be followed objectively by periodic non-invasive peripheral vascular studies. Changes in pulse volume tracings and segmental systolic pressures at rest and after exercise are the most sensitive means of detecting progression of disease and possible indications for operation. Alternatively, these patients may be placed on an exercise program in order to increase collateral circulation. The success of such a program can be defined quantitatively and recorded with segmental non-invasive testing.

Another group of patients who are not candidates for reconstruction are those with poor distal outflow in whom the patency rate of proximal revascularization is poor. These patients often benefit most from well-planned exercise programs and can be easily monitored by repetitive, non-invasive studies.

*Postoperative Follow-up.* The questions that must be answered following arterial reconstruction are: (1) Is the graft patent?, and (2) Is there significant progression of disease elsewhere? Pulse volume recordings are easily performed in the immediate postoperative period and can accurately identify early graft failure requiring re-operation. Segmental systolic pressures and pulse volume waveforms before and after standard exercise testing should be performed at regular intervals in the months and years postoperatively. They are capable of detecting both late graft failure and progression of arterial disease, demonstrating the functional significance of each.

**Summary**

A well-equipped, non-invasive peripheral vascular laboratory can provide useful, accurate, and objective data with minimal risk and expense. It can measure quantitatively the functional significance of occlusive lesions, information unobtainable by angiography. It has proved useful in the preoperative evaluation, the intraoperative monitoring and the postoperative follow-up of patients with arterial occlusive disease. These studies can be done repetitively on an outpatient basis while providing raw, hard copy data and an interpretive evaluation for the patient's physician.

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# Vascular Access For Chemotherapy: General Methodology And Experience With A New Reservoir

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*Several methods of vascular access for chemotherapy are reviewed. Their advantages and disadvantages are presented in contrast with a new reservoir that can be utilized as an alternative method for the same purpose. The technique of its implantation and utilization is described.*

Most chemotherapeutic regimens for the therapy of malignant disease include agents that are best given intravascularly. Some of these agents are strong local irritants. This review will cover the methodology of vascular access, including a new device (a subcutaneous reservoir) designed to reduce some of the problems of intravascular administration of highly-irritating solutions.

Access can be gained into either the venous or arterial systems.

Venous access may be via:

1. Unmodified peripheral veins.
2. A catheter inserted into a central vein and brought out through the skin for short or long-term use.
3. An external A-V shunt.
4. Peripheral veins made more prominent by the creation of an A-V fistula.
5. A central venous catheter attached to a subcutaneous reservoir.

The obvious and orthodox method of first preference is via *unmodified peripheral veins.* When adequate peripheral veins are unavailable or if highly-irritating agents must be given into small veins, one may elect to use alternative methods. The advantages, disadvantages and our overall assessment of the general usefulness of each of these methods make up the first part of this report.

*A central venous line brought out through the skin* offers obvious advantages if it is to be used for purposes other than long-term chemotherapy. However, as a means of long-term angio-access for prolonged therapeutic regimens, the risks and inconvenience would appear to outweigh the possible benefits: in addition to the problems associated with percutaneous insertion (i.e., pneumothorax), it would require meticulous care to avoid infection and sepsis. Maintenance of catheter patency might be difficult without a constant infusion. All these factors, we think, would make this approach impractical for long-term use.

*An external A-V shunt* could provide ready access for chemotherapy if necessary, with its advantages represented by a fast flow and no need for needling. However, the problems are:[2]

1. Tendency to clot formation is significant. Thrombosis of the venous limb is usually the first complication. The mean life of external A-V shunts is estimated to be three to eight months, although reports of improved survival (12 months) are available.

2. Despite meticulous care, infection is an almost inevitable complication of external shunts, usually represented by cellulitis at the exit and entrance sites. The average incidence of infection is estimated at a rate of one per six patient-months.

3. The distal artery has to be ligated.

4. Dislodgement and subsequent hemorrhage, although rare, represent an avenue for accidental death or suicide.

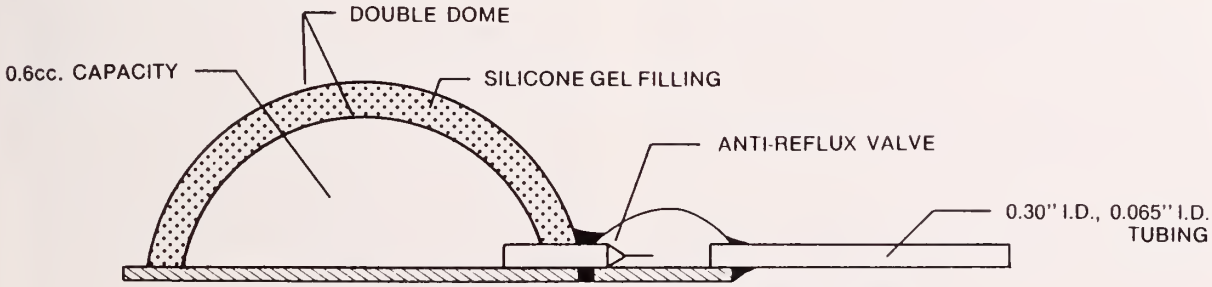


**Figure. Reservoir connected to an intravascular catheter.**

*A-V fistulas* are quite suitable for long-term chemotherapeutic purposes,[6,15] provided they are constructed early and not after vascular access has become difficult. They are convenient, safe and effective, but they do have some disadvantages:[2]

1. Even with proper technique and good run-off the thrombosis rate in the first few months is in the range of 10 per cent.

2. Venous hypertension, ulcerations and "sore thumb" syndrome may occur.

3. "Radial steal" syndrome with ischemia of the hand may occur, although in less than two per cent of the cases.

4. Sometimes venous aneurysms or pseudo-aneurysms may form.

5. A small percentage of cases develops late malfunction and occlusion, sometimes related to fibrotic stenosis at the site of repeated needle punctures.

6. Congestive heart failure in patients with standard wrist fistulas is rare, but may become manifest in patients with limited cardiac reserve or with a high-flow fistula. This is even more likely in patients where the high-flow fistula is associated with a low hematocrit and cardiomyopathy (sickle cell disease, diabetes). In these or similar situations it is important to keep in mind that some patients might require regimens that include cardiotoxic drugs, such as Adryamycin, and/or radiotherapy to the mediastinal area.

*Graft A-V fistulas* may be used, and the consensus favors the utilization of bovine[8] and EPTF grafts. They offer several advantages: easy availability, long shelf-life, good self-sealing properties, poor or no antigenicity, prominence, and ease of puncture. The disadvantages are the same as those of the regular A-V fistulas, with the added problem of increased susceptibility to bleeding and infection compared to non-graft fistulas. Furthermore, cardiac failure is more probable if the graft has to be placed in a major limb artery (brachial, popliteal).

A-V fistulas in children have not led to overgrowth of the limb, as it theoretically was feared, and almost always can be done in children weighing 15 kg. or more. Unfortunately, the procedure is often done after previous methods have failed, and the difficulties are even greater when grafts are needed.

In general, shunts and fistulas share not only specific but also common problems related to their use for chemotherapy since they require a somewhat more complicated method of construction and invade the arterial integrity of a limb. These problems appear more obvious in small children.

Most disadvantages of the above methods of access can probably be obviated by using a subcutaneous reservoir attached to an indwelling intravascular catheter; we will extend this concept in paragraphs to follow.

### Arterial Access

This report does not attempt to elaborate on the validity of the intra-arterial approach to chemotherapy. However, mention should be made that a careful survey and analysis of the literature support the idea of a pharmacological advantage for this route of drug administration.

Arterial access poses additional problems, including: (a) choice of regional or selective catheter placement (which will not be discussed further), and (b) methods of repetitive access to the arterial tree.

Repetitive arterial access can be obtained by:

1. Percutaneous puncture of unmodified arteries.
2. Percutaneous puncture of superficialized (transposed) arteries.
3. Externally-delivered catheters.
4. Subcutaneous reservoirs attached to previously-placed cathers.

The advantages, disadvantages and our overall assessment of these methods make up the remainder of this report.

Access by repetitive *puncture of unmodified arteries* offers the advantage of apparent simplicity. However, as a method of long-term administration of chemotherapeutic drugs, it would appear to be costly, time-consuming and traumatic.

*Percutaneous puncture of superficialized arteries* has been used for chemotherapeutic purposes with reasonable success.[5] This method refers particularly to the transposition of the carotid artery, but it has also been used with the superficial femoral artery. In the latter case, however, it has been used for purposes other than chemotherapy. Nevertheless, although this technique might be useful, its advantages are questionable and appear to be confined to the treatment of carcinomas of the head only, because access through percutaneous puncture will not permit even a moderate degree of selectivity. Additionally, the procedure in patients with extension of the carcinoma into the neck or involvement of cervical lymph nodes might be quite difficult and/or ineffective.

*Externally-delivered catheters* represent the most commonly used method of access to the arterial tree. They may be placed percutaneously,[1,17] or by direct surgical exposure.[16]

The advantages of external catheters are obvious: ready access for intermittent or continuous infusion at any time, plus little or no discomfort for the patient. Such a catheter can remain in place for long periods provided that adequate care is rendered.

External catheters project the image of the current state of the art. As it is, most of the objections raised against intra-arterial chemotherapy can be traced, directly or indirectly, to this modality of arterial access.

It is reported that morbidity and mortality are unacceptably high; however, mortality seems to be mostly related to the agents utilized for chemotherapy. A close analysis of the mortality and mordibity associated with intra-arterial chemotherapy appearing in the literature reveals most problems are related to infection, hemorrhage and ischemia in patients with external catheters inserted percutaneously. To these complications can be added those resulting from transabdominal surgical placement of catheters. Transfemoral catheters have the added disadvantage of imposing immobility.

In general, intra-arterial chemotherapy is considered a cumbersome and expensive technique because it requires tedious attention to detail, and patient management is difficult, if not impossible, outside a hospital setting.[10]

*The internal method* of access to arterial and venous circulation consists of an implantable (subcutaneous) reservoir attached to an indwelling intravascular catheter.

The idea certainly is not new. It has evolved from the well-tested use of the Ommaya cerebrospinal fluid reservoir since its inception in 1963.[11] This reservoir was later used for various purposes,[12] particularly for the delivery of chemotherapeutic agents and antibiotics to the cerebrospinal fluid.[4,13,14]

### Internal Method Technique

This information led us to think that a reservoir connected to an intravascular catheter would allow us to exploit many of the advantages of the situation and obviate many of its problems: the reservoir would permit easy access at any time with minimal or no discomfort to the patient: and, being buried, it would probably minimize infection, breakage, leakage and hemorrhage associated with catheters externally-delivered. Furthermore, it would certainly simplify nursing care, be cheaper, and permit outpatient care more readily and safely than with catheters extended externally.

Leakage of chemotherapeutic agents into the subcutaneous tissues must be prevented because of irritation and possibly serious ulcerations. For this reason, our present reservoir has been modified by adding a double gelatinous dome and a one-way valve, which will resist pressures of up to 15 pounds per square inch after repeated puncture (Figure). For testing purposes, a 25-gauge needle has been inserted in the reservoir up to 100 times without leakage unless this pressure is exceeded. The reservoir is placed subcutaneously in either infraclavicular area and attached to a heparin-filled catheter inserted into either vein or artery. The procedure is done under local anesthesia and fluoroscopic control to position the catheter tip.

### Acromiothoracic Branch

If an artery is being catheterized, we use a 4F Teflon line inserted through the acromiothoracic branch of the axillary artery, usually on the left side when the catheter is to be threaded down to the abdomen and from the right when necessary or indicated to treat head and neck lesions. This branch has been very consistent in our experience. We have been able to cannulate this particular artery 16 out of 17 times. The one failure occurred in our initial case, where we approached this branch without dissecting it down to its origin.

If chemotherapy is to be delivered intravenously, the vessel is entered at the deltopectoral groove, and a four French silicone catheter with a hepacone-impregnated tip is threaded into the superior vena cava, with the attached reservoir left in the infraclavicular area.

The reservoir can be punctured for the first time one week to 10 days after insertion, using a 25 or smaller gauge butterfly. A 0.22 micron filter is interposed between injector and needle and the solutions can be delivered at the desired rate either by syringe or by using any of the available pumps. We are designing a method to better stabilize the needle when prolonged infusions are chosen.

The puncture of the reservoir should be done in sterile fashion. The filter is used not only to impede entrance of bacteria, but also to trap small air bubbles. These dangers are further decreased by carefully filling the whole system with normal saline solution. Injection of fluid is started before puncturing the skin for the same purpose.

### Experience

Although this is a preliminary report, our experience with the reservoirs so far has been satisfactory. Nine reservoirs have been implanted, seven of them arterial and the two remaining venous.

None of them has become infected. One of the reservoirs had to be removed one month after insertion when the catheter occluded, with subsequent leakage of the reservoir. That patient had had the arterial catheter in place for over eight months and it had become occluded twice in the past. The reservoir was implanted and attached to the previously-placed catheter and was used for injection of chemotherapeutic agents once before the leakage occurred.

The remaining arterial reservoirs are functioning well. One has been in place for four and one-half months. Three have been in place for approximately two months. One patient with two reservoirs expired three weeks after insertion because of extensive involvement by tumor of both maxillary sinuses, pharynx, nasopharynx, and part of the floor of the mouth. This patient had severe respiratory failure, presumably on the bases of aspiration superimposed on extensive chronic pulmonary fibrosis. Those two reservoirs were functioning well at the time of death. All the arterial reservoirs are still being used for repeated courses of chemotherapy. They have been punctured from seven to 18 times each.

### Agents Injected

Of two venous reservoirs, one has been in place for three months and still is functioning well. The second was in place for one and one-half months and needed removal because of catheter occlusion.

The chemotherapeutic agents injected into the reservoirs thus far have been Vincristine, 5-Fluorouracil, Methotrexate and Bleomycin.

Several problems still need to be solved if we wish to simplify further the intra-arterial approach to chemotherapy. A very difficult one is represented by the indwelling arterial catheters.[3,7] We have observed that the free, mobile tip of the intra-arterial catheters occasionally induces the formation of vegetations in the wall of the artery. This could be the reason for the occurrence of cerebrovascular accidents or thromboembolic phenomena as reported in patients with indwelling catheters in the carotid system. Contrariwise, the portion of the catheter that is immobile is covered by a smooth, intimal-like layer that incorporates the catheter to the arterial wall with no apparent break in its continuity. These findings have been a stimulus to experiment with different catheter designs in an effort to avoid the reaction observed at the catheter tip.

### Conclusion

In conclusion, alternative methods of vascular access should be considered under certain circumstances. The subcutaneous reservoir technique, both venous and arterial, provides advantages in convenience, simplicity and safety over the other available methods of intravascular drug administration.

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# Special Article

# Continuing Medical Education Forum:* I. The Dilemma Of Continuing Medical Education

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*Editor's Note*:

Below, in part, are the introductory remarks for Doctor Smith's article by the Editor of *Continuing Medical Education Newsletter* (see footnote), Marvin E. Johnson, M. D.

"The following article by Robert L. Smith, M. D., is a very good example of an expert presenting us with succinct, pertinent and challenging questions about several aspects of continuing medical education. His article is important because it shows clearly that each of the problems in continuing medical education is multifaceted and therefore not subject to simplistic answers. Heeding these questions should assist greatly in making effective plans for future improvements in continuing medical education."

"This contribution is also very timely since the House of Delegates of the American Medical Association will be considering a new definition of continuing medical education for the Physician's Recognition Award Program which is contained in Report C of the Council on Medical Education, at its July, 1979, meeting. Doctor Smith very wisely delineates several factors which have great impact on physician performance other than his state of knowledge of medical facts. The new definition of CME also takes notice of these factors and points out the importance of education per se in dealing with some of them. Perhpas we are actually entering a phase II in the sophistication of our thinking about continuing medical education and the impact it has on the actual quality of medical care. Hopefully, other readers will share their thoughts and experiences on these matters with us so that the ultimate decisions and actions can be of the highest possible quality."

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CONTINUING medical education for physicians continues to be a popular item. Over the past five years, there has been approximately a 300 per cent increase in the number of CME courses that meet criteria for Category 1 credit toward the Physician's Recognition Award [of the American Medical Association]. There is considerable concern about the efficacy of much continuing medical education even though it may be "designated by an accredited institution as meeting the criteria for Category 1 credit," the "CME seal of approval."

In the interest of enhancing the health of people, the goal of continuing medical education, according to the Liaison Committee on Continuing Medical Education (LCCME), is to maintain and improve the competence of physicians. At first blush, one probably would say that enhancement of people's health logically follows maintenance and improvement of physician competence; however, there is good argument that no matter how competent the physician, patient compliance, attitude and life-style have more significance for the patient's health. Postponing this argument for the time being, does maintenance and improvement of physician competence always result from CME, even Category 1 CME; does it sometimes and not other times; does it ever?

When a physician completes his undergraduate and graduate education and training, he brings to his subsequent practice certain attitudes, skills and knowledge. Education thereafter, referred to as continuing medical education, for the most part is directed toward the knowledge side of this triumvirate. To be sure, he/she occasionally enhances his/her skills through formal or informal association with someone who has a skill he/she wishes to learn, and a few CME courses do have as their objective changing physician attitude, but the "bread and butter" CME is most apt to be "Update," "New Concepts," "A Review Of-" or "What's New," strictly cognitive approaches.

### Not Just Knowledge Deficits

Ironically, deficiencies in physician performance that detract from "enhancing the health of people" have only infrequently been shown to be

*The articles comprising the *Continuing Medical Education Forum* appeared in the May, 1979, issue of *Continuing Medical Education Newsletter*, published by the American Medical Association, Department of Physicians Credentials and Qualifications; Marvin E. Johnson, M. D., Director.

the result of physician knowledge deficiencies, despite the medical knowledge explosion and short half-life. Traditionally, life-long learning has been a trademark of the medical profession, and physicians are likely to be well read on any new developments in their field, even though they may not immediately incorporate the new developments in their practice. (At a recent meeting of CME'ers, Dr. J. Jerome Wildgen, with not too much "tongue in cheek," surmised that it was good that all new information is not immediately operationalized.)

There is consensus, if not unanimity, among some physicians that motivation, workload, supportive personnel and facilities, integrity, mental and emotional health, clinical judgment, data gathering and assessment skills, and communication skills are more likely to figure in quality of care deficits than knowledge.

Yet, when physicians are asked what they perceive as their continuing medical education needs, they do not often answer, "I need to learn how to manage my office personnel to relieve my workload," or "I need to learn to communicate more effectively with my patients so that there is better compliance with treatment plans," or "I need help in emotional or mental problems that detract from the provision of the best care of which I am capable." Indeed, many medical education directors receiving such answers on needs assessment questionnaires would probably be at a loss to respond. It is also probable that education addressed to such needs would not even be considered to "meet criteria for Category 1 credit."

### Effort Worthwhile?

How relevant to the "maintenance and improvement of physician competence" is the continuing medical education that is reflected in the 8,795 courses conducted by 1,576 sponsors in the academic year 1978-79? In view of the likelihood that most such CME was directed at acquiring new knowledge and updating or discarding the old, and knowledge deficiency is not the major incrimination in quality care shortcomings, are we deluding ourselves and others by continuing to develop opportunities for physicians to participate in formal, cognitive continuing medical education? Since we are unable to detect or establish a clear, consequential trail from educational needs to CME program, to improvement of physician competence, and to enhancement of health of people, through continuing medical education, is the effort worthwhile?

This is the dilemma of CME! Although there is paltry documentation that continuing medical education has a salutary influence on quality of care, and some physicians may not use effectively the knowledge they have, it is beyond dispute that knowledge cannot be used if the physician does not have it. So, while a case may be made against continuing medical education for its ineffectiveness in maintaining and improving physician competence, to do away with formal CME would be discrediting the need for knowledge rejuvenation.

### Need Constant Renewal

As Dr. C. H. William Ruhe has stated in his chapter in Egdahl and Gertner's *Quality Health Care*, knowledge gained earlier must constantly be renewed much as a pond is renewed and brought back to a normal level with the rains. It is difficult to show an effect on the level of the pond by a few drops of rain, or even a shower, but without rain (CME), the level would certainly be lowered by evaporation (knowledge attrition).

We have provoked the dilemma because we have grasped at CME as the panacea for all of our medical problems, malpractice increase, burgeoning technical developments in medicine — even, perhaps, the cost of medical care; we have asked of continuing medical education more than it can deliver. We have further compounded the dilemma by legitimatizing our unwarranted expectations of CME through legislative mandates for accumulating CME credit. The voluntary paradigm of life-long learning has been encroached upon and is in danger of usurpation. Like Pogo, I am afraid the enemy is us.

# II. Let's Be Fair

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*Editor's Note*:

Following are the introductory remarks for Doctor Derbyshire's article by the Editor of *Continuing Medical Education Newsletter* (see footnote on Page 213), Marvin E. Johnson, M. D.:

"The following article from our respected colleague, Robert C. Derbyshire, M. D., is a timely and welcome addition to the ongoing discussion of the relative values of voluntary and mandatory continuing medical education. As a practicing physician active in the affairs of a state medical association and a state licensing board for a great many years, he is able to base many of his opinions on personal experience. He served as Secretary-Treasurer of the New Mexico Board of Medical Examiners and also as President of the Federation of State Medical Boards. In 1972, New Mexico was the first state to implement mandatory continuing medical education requirements for license reregistration. Doctor Derbyshire authored an authoritative book entitled, *Medical Licensure and Discipline in the United States*."

"The New Mexico statistics he presents lend real credibility to the efforts the profession is making to protect the public from incompetence. His comments emphasizing the effectiveness of continuing medical education in improving quality care are worthy of note. His observation about the improvement in the quality of continuing medical education is deserving of emphasis."

"The AMA policy on recertification does require clarification. The House of Delegates endorsed the concept of recertification, but stated strongly that the process should be voluntary."

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MANDATORY continuing medical education has by no means gained universal popularity among the members of the profession. Many physicians have bitterly resisted the passage of laws linking continuing education with relicensure or reregistration, despite the fact that in several states the medical associations have sponsored them. The American Medical Association has always opposed mandatory continuing education, favoring the voluntary approach. However, the AMA's stand seems inconsistent in that it approves of recertification by specialty boards.

Medical educators are among the most vociferous critics of mandatory continuing education, maintaining that no one has ever proven that continuing education improves patient care or brings about desirable changes in the practice habits of physicians. Some go so far as to question whether doctors even learn anything from their efforts. The educators have produced a spate of articles in support of their claims. At least two appeared during 1978 in prestigious medical journals having wide circulation.[1,2] The approach of the author of the first article was strictly parochial, while in the second, the personal bias of the author was so evident that one might question his conclusions.

The educators are not alone in their condemnation of laws linking education with relicensure. Recently, a member of a state licensing board publicly stated that his organization has refused to implement the law because of lack of evidence that continuing education improves patient care.

### Studies Show Value Of CME

Now, in all fairness, let us look at the other side. John S. Lloyd, Ph. D., of the American Board of Medical Specialties, kindly sent me a copy of his bibliography supporting the contention that continuing education does improve practice habits. While many of the 64 articles analyzed methods of education and the difficulty of evaluating their effectiveness, I was able to select 27 studies which showed the favorable effects of the process. Notable among these were the articles of Rubenstein of Stanford,[3] Inui and his colleagues at Johns Hopkins,[4] and Tucker and Reinhardt of the University of Alberta.[5] Not only did the authors show that continuing education can be beneficial to both physicians and patients, but also that physicians retain their acquired knowledge.

Another claim of the detractors of continuing education is that it is prohibitively expensive, both in terms of travel and the exhorbitant fees charged for courses. A favorite target of their scorn is the so-called luxury educational cruise that many doctors use as a tax dodge to give them cheap vacations. Some of this criticism is justified. But the physician has free choice as to how he will spend his money for education and he does not have to spend large sums and inordinate amounts of time away from his practice. In

fact, in many instances, he does not have to leave his state to fulfill the requirements. Furthermore, the fees for postgraduate courses offered by such organizations as the American Medical Association, the American College of Physicians and the American College of Surgeons are not exhorbitant, averaging $10 or less an hour for programs of high quality.

The opponents of the laws requiring continuing education ignore the fact that an important reason for their passage is to eliminate the long-established custom of lifelong licensure. Before the enactment of these laws, physicians could renew their licenses year after year by merely paying the required registration fees regardless of their state of obsolescence or even senescence. The licenses of many physicians remained in good standing, even though they had not practiced for years. In New Mexico, the first state to require continuing education, the licenses of 256 physicians have been suspended for failure to meet the requirements. Seventy-three of these doctors resided and practiced within the state. Although many of them had probably been good doctors in their day, due to their current state of obsolescence, one could not call them great healers by any stretch of the imagination. Moreover, following the passage of the law, there was great improvement in both the quality and quantity of educational programs with a concomitant surge in attendance.

**Step In Right Direction**

While no one can justifiably claim that participation in continuing education is absolute assurance of continuing competence, it is a step in the right direction. Furthermore, mandatory continuing education is at least a partial answer to certain influential members of Congress who continually push for periodic relicensure by examinations administered by the federal government, an idea that is anathema to most practicing physicians.

Let the critics of mandatory continuing education cease their blanket condemnation of the process. In the interest of fairness, they should no longer ignore the studies that show that it can be beneficial to both doctors and patients.

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# WHEELING HOSPITAL

**Wheeling, West Virginia**

Announces Course

## BALANCE DISORDERS

**Thursday, September 20, 1979**

Approved for 8 Credit Hours Category I for the Physician's Recognition Award of the AMA. Acceptable for 8 Prescribed Hours by the American Academy of Family Physicians.

This course is designed for the family practitioner and the many various specialists seeking better understanding and improved competence in the diagnosis and management of the patient with any form of dizziness or disequilibrium. The registration fee is $25.00 and includes the course-related materials, luncheons, refreshments and cocktails. The topics covered will include:

Anatomy and Physiology
Diagnosis and Evaluation
Electronystagmography
Hyperlipoproteinemia and Vertigo
Basilar-Vertebral Artery Insufficiency
Aged Otoliths
Management of Hyperlipoproteinemia
Abnormal Glucose Metabolism
Ocular Vertigo
Hypoglycemia

### Outstanding Visiting Faculty Includes:

**Sidney N. Busis, M. D.**
Clinical Professor of Otolaryngology
University of Pittsburgh
School of Medicine
Pittsburgh, Pennsylvania

**DeWitt E. DeLawter, M. D.**
Clinical Professor of Medicine
Georgetown University
School of Medicine
Washington, D. C.

**Muriel D. Ross, Ph. D.**
Associate Professor of Anatomy
University of Michigan
School of Medicine
Ann Arbor, Michigan

**James T. Spencer, Jr., M. D.**
Clinical Associate Professor of
Otolaryngology
West Virginia University
School of Medicine
Morgantown, West Virginia
Clinical Division
Charleston, West Virginia

**B. Todd Troost, M. D.**
Associate Professor of Neurology and
Ophthalmology
University of Pittsburgh
School of Medicine
Pittsburgh, Pennsylvania

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REGISTRATION FORM

## BALANCE DISORDERS

**September 20, 1979**

NAME_____ SPECIALTY_____

ADDRESS_____ CITY_____ STATE_____

Registration fee is $25.00. Please make checks payable to Wheeling Hospital and mail with this form to: George M. Kellas. M. D., Director, Wheeling Hospital, Continuing Medical Education, Medical Park, Wheeling, West Virginia 26003.

# *A message from . . .*

# *The President*

## AN EXCELLENT JOB

As my year as your President reaches its termination, I would like to thank you for the opportunity to have served you. The experience has certainly been enlightening in allowing me to better understand your needs as members of the Association.

Again, I want to remind you that you are doing an excellent job, individually, in the delivery of health care to the citizens of West Virginia, and, collectively, through your State Association, in the promotion of the art and science of medicine and the betterment of public health.

Your cooperation and willingness to participate in Association activities through service on committees as well as other functions has been greatly appreciated.

You can be justly proud of the able leadership of your Executive Secretary, Charles R. Lewis, and his excellent staff.

I am sure you are looking forward to the term of Dr. Stephen D. Ward as President. He has excellent credentials for the office, and he undoubtedly will serve you well.

Once again, thank you for this rewarding experience—and keep up the good work.

Robert D. Hess M.D.

ROBERT D. HESS, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

Surgery . . . emergency medicine . . . dermatology . . . family practice . . . medical education.

This is the range of professional activity from which the leadership of the West Virginia State Medical Association has evolved in recent years. Soon to be added is psychiatry.

**A WIDE RANGE OF DEDICATION**

But beneath such varying professional, and also geographical, backgrounds of Association Presidents since 1974-75 has run a single, highly significant thread—that of dedication to *all* members of the Association, and a devotion to service on their behalf.

At the Greenbrier in White Sulphur this month, the Association Presidency will pass from the medical educator, Robert D. Hess, M. D., of Clarksburg, to a psychiatrist, Stephen D. Ward, M. D., of Wheeling.

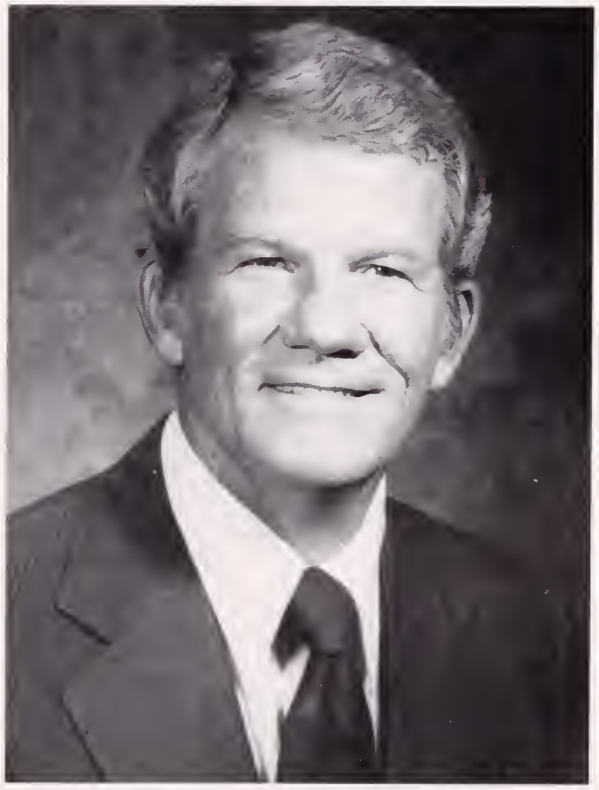
But the dedication and devotion will continue, as it has through 112 years of Association history. And for Doctor Ward, the initial challenges, at least, will be generally the same as those faced by his immediate predecessors: the uncertain future of health planning; the still growing tentacles of government regulation; a wide spectrum of federal and state legislative proposals with great potential impact on the nation's system of health and medical care; and how to assure continued accessibility and quality of patient care amid the inflation-fed turbulence of the times.

Nothing is easy in this day and age, and one of the toughest day-by-day struggles involves fighting off frustration that can lead only to defeat. Doctor Hess certainly understands these things better than he ever imagined after a year of travel, amounting to thousands of miles, into every corner of West Virginia.

He has met hundreds of physicians and their wives on a face-to-face basis in the great majority of the Association's 28 component societies. He will leave, as a major accomplishment of his Presidency, a new rapport between Association leadership and those physicians and their families who really ARE the Association.

Doctor Hess has repeatedly told West Virginia's physicians that they are doing a good job. He's convinced that expanded residency programs in family practice and other fields will assure that progressively more physicians will be doing an even better job in providing care West Virginians want and need.

The 1978-79 Association year has brought a further increase in membership . . . continued expansion of a program to accredit continuing medical education programs in community hospitals . . . further work toward more medical rehabilitation services so badly needed by large numbers of state residents . . . increased involvement of physicians in a health planning process



**Robert D. Hess, M. D., President**

which continues to present serious questions and problems . . . and greater involvement in the legislative process at both state and federal levels.

As a general rule, significant progress comes slowly. A major continuing challenge involves how to resolve a physician distribution problem which still plagues numerous parts of the state. Mere numbers of physicians won't resolve that situation. There must be incentives of a social, educational and professional nature to encourage interest in rural practice opportunities.

To the Association Presidency, Doctor Ward will bring some new skills and background. Along with years of Council, Committee on Legislation and other service within the Medical Association structure, he's gained invaluable knowledge as a member of the American Medical Association's Council on Legislation. And he's provided strong leadership for the Editorial Board and staff of the prize-winning *West Virginia Medical Journal* in his role as Editor and Chairman of the Association's Publication Committee.

The leadership of the Association will pass this month from the strong, capable hands of one President to the equally competent and imaginative abilities of another.

On with the changing of the guard!

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As their National Health Insurance plan of the year, Sen. Edward Kennedy and his helpmates have built a bright-eyed new statue with the same old clay.

**MORE SLOGAN THAN REALITY**

The new "Health Care for All Americans" bill differs from his old "Health Security" bill in particulars, but not in basic materials.

Again, the public would save on health bills by paying substantially more in tax bills. By the proponents' own estimates, the new federal costs would be $30 billion in 1983, the year targeted for implementation. And as we know, the costs of federal programs—especially social ones—have a facility for growing.

Again there would be the heavy hand of government intervention and regulation.

But instead of being squeezed under, as in the Health Security bill, it appears private health insurers would be allowed a role of subordination. Government would regulate them and preside over negotiations on their premiums and on physician and hospital payments, and no company would be "at risk" in the true insurance sense.

In the spirit of the old bill, there would be a built-in stress and strain between health care promises and economic prohibitions.

On the one hand, the measure would guarantee comprehensive health insurance coverage to every American at all times, amplify Medicare coverage (with no deductibles or co-insurance), reform Medicaid (eliminating the means test), etc.

On the other hand, the program would be subject to a national budget, whereby health expenditures would be strictly limited by state and regional allocations. Providers would have to furnish all services within the limit.

If funds run out before the end of a budget period, would providers be expected to subsidize health services? Would budget restraints and negotiation of insurance premiums and provider payments invite government rationing or care?

Those are among the grim but realistic questions to be raised as Mr. Kennedy and his supporters try to supply all the answers.

Certainly, we all want answers—sound answers—to present gaps and shortcomings in health protection. In the words of AMA Executive Vice President James H. Sammons, M. D., "The AMA continues to believe that consumer choice, private insurance, and limited government regulation should be at the heart of our health care system."

"Medicine again faces a renewed responsibility to speak out on the major legislative proposals dealing with health care and to share our concerns with the Congress and our fellow citizens." —*Guest editorial by American Medical Association.*

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Since the editorial above was fashioned, we also have seen the emergence of President Carter's curent NHI proposal, which actually represents the first phase of a comprehensive plan that includes some mandatory fee schedules. It appears to offer extended benefits on the one hand while restricting the availability of services and resources on the other.

**CARTER PROGRAM**

Significantly, organized medicine has for some time been concerned with major issues presented in the President's program. For example, it has supported expanded catastrophic and basic insurance coverage in the private sector; the filling of insurance gaps created when insurance is not available through an employer, and more equity and uniformity within Medicare and Medicaid programs.

Medicine remains convinced, however, that arbitrary government controls don't reduce costs—they simply reduce care available without addressing the public's demand and need for health care.

# GENERAL NEWS

## Liberalism In Medicine Subject Of Keynote Address

"The Future, and Proper, Role of Liberalism in Medicine" will be the title of the address by Michael J. Halberstam, M. D., of Washington, D. C., during the 112th Annual Meeting of the State Medical Association.

The convention will be held August 22-25 at the Greenbrier in White Sulphur Springs.

Doctor Halberstam, Editor-in-Chief of *Modern Medicine*, will deliver the keynote Thomas L. Harris Address during opening exercises on Thursday, August 23, at 9 A. M. This annual address was established with a bequest in the will of the late Dr. Thomas L. Harris, Parkersburg surgeon who served as President of the Association in 1945.

Annual Meeting activities will get under way with a 2 P. M. meeting of the Association's Executive Committee on Tuesday, August 21; the usual pre-convention meeting of the Council at 9:30 A. M. on Wednesday, and the opening session of the House of Delegates at 3 P. M. on Wednesday.

Dr. Hoyt D. Gardner of Louisville, Kentucky, who was installed as President of the American Medical Association during the AMA House's Annual Meeting in Chicago last month, will address the first House Session.

Some 12 Association sections and affiliated societies will hold breakfast and other meetings—mostly on Friday.

The Annual Meeting will continue through Saturday, August 25, when Dr. Stephen D. Ward of Wheeling will be installed as Association President during the second and final session of the House of Delegates. Doctor Ward will succeed Dr. Robert D. Hess of Clarksburg.

### Presidential Address

Doctor Hess, a family physician who is now Director of Medical Education at United Hospital Center, Inc., in Clarksburg, will deliver his address as the retiring Association President prior to the installation of Doctor Ward at the final House session on Saturday afternoon.

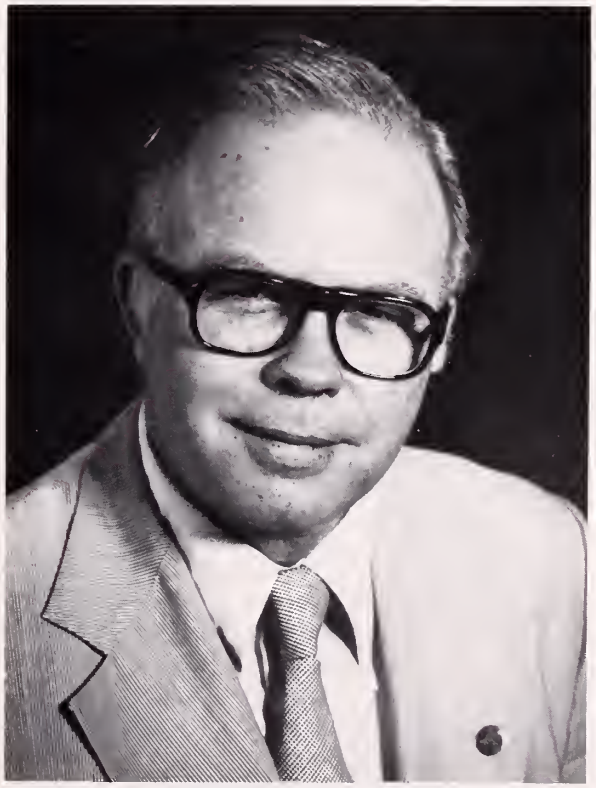
Dr. Joseph A. Smith of Dunbar, Chairman, will preside at the pre-convention meeting of the Council on Wednesday. The first House session will follow in Chesapeake Hall at 3 P. M. Doctor Hess will be the presiding officer.

From 6:30 to 7:30 P. M. on Wednesday, a President's Reception for Honor Guests will be held on the Old White Patio.

All three of this year's general sessions will be held in the theater, with the first to follow the 9 A. M. opening exercises on Thursday, August 23. The other two sessions will be at 9:30 A. M. on Friday and Saturday.

Several of the guest speakers have accepted invitations to present talks at meetings of the sections and affiliated societies of the Association, most of which, as noted, are scheduled Friday.

The scientific exhibits will be located in Eisenhower Hall, adjacent to the theater. Physicians, members of the Auxiliary and their guests are



**Stephen D. Ward, M. D.**

## Convention Timetable

The first general scientific session will follow 9 A.M. opening exercises on Thursday, August 23. The Friday session will begin at 9:30 A.M., and the session on Saturday, at 9:30 A.M.

The first session of the House of Delegates will be on Wednesday afternoon, August 22, beginning at 3:00. The second session will be on Saturday afternoon beginning at 2:30.

urged to visit the exhibits, which will be open from 8:30 A. M. to the close of the morning sessions.

### Formal Opening Exercises

Doctor Hess will call the Annual Meeting to order at the 9 A. M. session on Thursday, with Dr. Joe N. Jarrett of Oak Hill to give the invocation. Doctor Hess will make welcoming remarks, and Dr. Arthur A. Abplanalp of Charleston, Chairman of the Program Committee, and the other members of his committee will be introduced. The first general session will be held following the address by Doctor Halberstam.

Dr. Donald S. Robinson of Huntington will serve as moderator for the first general session program, a "Symposium on Drug Reactions and Interactions." The speakers and their topics will be:

"Perspectives of Clinical Problems with Drugs"—Leighton E. Cluff, M. D., Vice President, The Robert Wood Johnson Foundation, Princeton, New Jersey; "Drug Levels: Fact and Fancy"—W. Leigh Thompson, M. D., Professor of Medicine, Case Western Reserve University, and Co-Director of Clinical Pharmacology and Critical Care Medicine, University Hospitals of Cleveland; and "Psychotropic Drug Interactions" —Frank J. Ayd, Jr., M. D., Director of Professional Education and Research, Taylor Manor Hospital, Baltimore; and Professor of Psychiatry, West Virginia University Medical Center, Charleston Division.

## Luncheon For Past Presidents

A luncheon honoring Past Presidents of the West Virginia State Medical Association will be held at the Greenbrier on Thursday, August 23, during the 112th Annual Meeting.

Dr. Joseph A. Smith of Dunbar, Immediate Past President, will preside, and invitations have been extended to all the Association's Past Presidents.

### Thursday Afternoon

A luncheon honoring Past Presidents of the State Medical Association will be held at 12:30 P. M. Thursday in the Tyler Room, with Doctor Smith scheduled to preside. The Association's Resolutions Committee, with Dr. Richard E. Flood of Weirton presiding, will meet at 2 P. M. Thursday in the Directors' Room.

### Friday Breakfast Meetings

All but one (to be noted) of the Friday morning breakfast meetings will begin at 7:30. The meetings, speakers (where scheduled) and their topics follow:

West Virginia Academy of Ophthalmology and Otolaryngology, Moseley H. Winkler, M. D., of Charleston presiding, Washington Room;

Section on Internal Medicine, Robert H. Waldman, M. D., of Morgantown presiding; "Are Special Care Units for Medical Patients Beneficial or Detrimental?," Leighton E. Cluff, M. D., Princeton, New Jersey, and W. Leigh Thompson, M. D., Cleveland, Lee Room;

Section on Dermatology, John J. Mahood, M. D., of Bluefield presiding; presentation of case histories by individual members, including biopsies and clinical photographs; William A. Welton, M. D., Professor and Chairman of Dermatology, WVU Medical Center, Morgantown, moderator, assisted by staff residents, Jackson Room;

Section on Surgery, Robert J. Reed III, M. D., of Wheeling presiding; "Radiofrequency Thermotherapy for Cancer," Harry H. LeVeen, M. D., Brooklyn, New York, Buchanan Room, and

Section on Urology (8 A. M.), Stanley J. Kandzari, M. D., of Morgantown, presiding; "Vesicoureteral Reflux," George A. Richard, M. D., Professor of Pediatric Neurology, University of Florida, Gainesville, Directors' Room.

### Second General Session

Doctor Waldman will be the moderator at the second general session beginning at 9:30 A. M. on Friday. The speakers and their topics will be:

"Update on Total Joint Replacement"—Eric L. Radin, M. D., Professor and Chairman of Orthopedic Surgery, WVU Medical Center, Morgantown; "The Pain Clinic: Unique Approach to an Old Problem"—Robert Bettinger, M. D., Assistant Professor of Anesthesiology, WVU Medical Center, Morgantown, and "The Use of the Newer Non-Steroidal Anti-Inflammatory Drugs

## House of Delegates To Meet Twice During Meeting

The first session of the House of Delegates during the Annual Meeting at the Greenbrier will be convened at 3:00 P.M. on Wednesday, August 22. The second and final session of the House of Delegates will be held at 2:30 P.M. on Saturday, August 25.

in Treatment of Musculoskeletal Disease" — Michael E. Crouch, M. D., Assistant Professor of Medicine, WVU Medical Center, Morgantown.

#### Friday Afternoon Schedule

The Association's Publication Committee, with Doctor Ward, Chairman, presiding, will meet at noon on Friday in the Buchanan Room. Dr. David B. Gray of Charleston, Chairman, will preside at a meeting of the Cancer Committee at 12:15 P. M. Friday in the Washington Room.

The Board of Trustees of the West Virginia Medical Institute, Inc., with Dr. Harry S. Weeks, Jr., of Wheeling presiding, will meet at 12:30 P. M. Friday in the Directors' Room.

Also meeting Friday afternoon will be the following sections and affiliated societies of the Association:

West Virginia Chapter, American College of Emergency Physicians, Dr. Jack R. Page of Charleston, presiding; "Drug Interactions in the Emergency Department," Frank J. Ayd., Jr., M. D., Baltimore, and "Emergency Department Evaluation of the Alcoholic," William E. Anderson, M. D., Morgantown, 1 P. M., Pierce Room;

Section on Orthopedic Surgery, Dr. Charles M. Davis, Jr., of Morgantown presiding; "Treatment of Osteonecrosis of the Femoral Head in the Young Adult," Eric L. Radin, M. D., Morgantown, 2 P. M., Tyler Room;

West Virginia District Branch, American Psychiatric Association, Dr. Charles C. Weise of Charleston presiding; "Risk-Benefit Ratios of Lithium Compared with Tricyclic Antidepressants and Neuroleptics," Frank J. Ayd, Jr., M. D., Baltimore, 2 P. M., Lee Room;

West Virginia Chapter, American Academy of Pediatrics, Dr. Herbert H. Pomerance of Charleston presiding; "Immunization Procedures: 1979 Update," Saul Krugman, M. D., New York City, 2 P. M., Fillmore Room, and

West Virginia Chapter, American Society of Internal Medicine, Dr. Alfred K. Pfister of Charleston presiding, 4 P. M., Jackson Room.

The Association's Committee on Nominations, with Dr. Jack Leckie of Huntington presiding, will meet at 5 P. M. in the Directors' Room.

#### Saturday Morning Schedule

The West Virginia Radiological Society, with Dr. Orlando F. Gabriele of Morgantown presiding, will meet at 8 A. M. in the Tyler Room. The speaker will be Dennis D. Watson, Ph. D., Associate Professor of Medicine and Associate Director, Cardiology Non-Invasive Laboratory, University of Virginia School of Medicine, Charlottesville. His subject will be "Nuclear Cardiac Imaging and Clinical Function."

The third general session, a "Symposium on Liver Disease," will be held at 9:30 A. M. in the theater, with Dr. George J. Hill II of Huntington moderating.

The speakers will be Harry H. LeVeen, M. D., Chief, Surgical Service, Veterans Administration Hospital, Brooklyn, New York; and Professor of Surgery, State University of New York, whose subject will be "Surgical Treatment of Ascites;"

## Nominating Committee To Meet On Friday, August 24

The State Medical Association's Committee on Nominations will hold a 5 P.M. meeting on Friday, August 24, in the Directors' Room of the Greenbrier.

The Committee will make nominations to the House of Delegates for President Elect, Vice President and Treasurer, and for Delegate and Alternate Delegate to the American Medical Association.

Association By-Laws also provide that nominations may be made from the floor for these offices, to be filled by the House in balloting at its final session on Saturday, August 25, the final day of the Association's 112th Annual Meeting.

Dr. Jack Leckie of Huntington will serve as Chairman of the Committee on Nominations, with other members to include: David H. Williams, Weirton; Ralph W. Ryan, Morgantown; Dewey F. Bensenhaver, Petersburg; M. V. Kalaycioglu, Shinnston; R. Paul Bennett, Webster Springs, and David F. Bell, Jr., Bluefield.

In addition, one of the Kanawha Medical Society's two Councilors will serve on the Committee under provisions of the By-Laws. That representative will be Dr. Carl J. Roncaglione of Charleston.

### The 1979 Program Committee

Dr. Arthur A. Abplanalp of Charleston is Chairman of the Program Committee for the 112th Annual Meeting of the West Virginia State Medical Association. Other members of the Committee are Drs. Marshall J. Carper, South Charleston; Cordell de la Pena, Clarksburg; George J. Hill II, Huntington; Robert H. Waldman, Morgantown, and Stephen D. Ward, Wheeling.

Saul Krugman, M. D., Professor of Pediatrics, New York University Medical Center, New York City, "Viral Hepatitis: New Developments," and William E. Anderson, M. D., Professor, Department of Medicine, and Chairman, Division of Gastroenterology, WVU Medical Center, Morgantown, "Alcoholic Liver Disease."

#### Saturday Afternoon

The West Virginia State Society of Anesthesiologists, with Dr. John F. I. Zeedick of Charleston presiding, will meet at noon on Saturday in the Directors' Room. The guest speaker will be Robert Bettinger, M. D., of Morgantown, whose subject will be "Management of Pain Problems."

#### Second House of Delegates Session

Doctor Hess again will be the presiding officer at the second and final House of Delegates session in Chesapeake Hall at 2:30 P. M. on Saturday.

Along with his Presidential Address and the installation of Doctor Ward, the agenda will include election of other Association officers and consideration of several business items.

#### Medical School Alumni Events

Cocktail parties will be held by the West Virginia University School of Medicine's Alumni Association Thursday evening, and by the University of Virginia Medical School Foundation and the West Virginia Chapter, Medical College of Virginia Alumni Association, Friday evening.

Dr. David Z. Morgan will be in charge of the WVU festivities in the West Virginia Room Thursday at 6:30 P. M. Dr. William C Morgan will serve in the same role for the University of Virginia affair at 6 P. M. Friday (location to be announced). Dr. Larry C. Smith will be in charge of the Medical College of Virginia event at 6:30 P. M. Friday on the Old White Patio.

The Auxiliary to the State Medical Association will sponsor a "Monte Carlo Night" Friday beginning at 10 o'clock in Chesapeake Hall. The Cabell County Auxiliary will be the hostess, with Mrs. Charles E. Turner of Huntington serving as Chairman. All physicians, their wives and others registered for the State Medical Association convention are invited. Tickets may be purchased at the Auxiliary registration desk.

#### Saturday Evening Reception

New and continuing officers of the State Medical Association will be honored at a cocktail party and reception from 6:30 to 7:30 P. M. Saturday on the Colonial Hall Terrace. All members of the Association and Auxiliary and their families, representatives of scientific exhibitors and convention guests are cordially invited.

### No Registration Fee for Members

Members of the West Virginia State Medical Association will not be assessed a registration fee in connection with the 112th Annual Meeting at the Greenbrier in White Sulphur Springs, August 22-25.

Interns, residents and medical students also will be registered without charge.

There will be a registration fee of $50 for out-of-state physicians attending the meeting.

## Sports Events To Complement Annual Meeting Agenda

Golf, tennis and skeet competition again will complement scientific and business activities during the West Virginia State Medical Association's 112th Annual Meeting August 22-25 at The Greenbrier in White Sulphur Springs.

Dr. Marcel G. Lembrechts of Charleston is the Medical Golf Tournament's defending champion; while Drs. Maurice A. Mufson of Huntington and Rabindran Israel of Charleston will have an opportunity to defend tennis honors limited to doubles competition.

Doctor Israel also won the 1978 skeet tournament, with Dr. David R. Hess of Bridgeport as the runner-up.

The Medical Association's Auxiliary likewise will offer golf and tennis competition, with Mrs. William E. (Maxine) Gilmore of Vienna the defending golf champion, and Mrs. Prospero B. Gogo and Mrs. Joseph A. Maiolo, both of Beckley, the 1978 tennis winners—again in doubles competition.

## State Medical Association Lists Names of New Members

The following is a list by component societies of new members of the West Virginia State Medical Association elected from January 1 through June 30, 1979:

**Boone**

Isabel Mantundan ..... Sylvester

**Cabell**

Nelio S. Abrenica ..... Huntington
Mohammad I. Ahmad ..... Barboursville
John Corcella ..... Huntington
Benjamin M. Edwards ..... "
T. R. Gabriel ..... "
David K. Heydinger ..... "
Cesar B. Ibanez ..... "
Rajendra Jain ..... "
Subrat K. Lahiry ..... "
Ned S. Moss ..... "
Paul K. Murphy ..... "
Milton Rosenbaum ..... "
Lorraine J. Rubis ..... "
William Schmitt ..... "
Herbert H. Spencer ..... "
Javier Vallejos ..... Wayne

**Central West Virginia**

Arturo B. Sabio ..... Sutton
John Stephen Shank ..... Summersville

**Eastern Panhandle**

F. F. Ferguson ..... Martinsburg
John R. Miller ..... Berkeley Springs
Carmelita Shah ..... Martinsburg

**Fayette**

Adin Timbayan ..... Mt. Carbon

**Greenbrier Valley**

Valerie Marie Lobo ..... Ronceverte
Luis E. Soriano ..... Marlinton

**Hancock**

Krishnan K. Aggarwal ..... Weirton
Shakumtala Modi ..... "
Anita S. Olmos ..... "

**Jefferson**

Rene P. Buenvenida ..... Washington, D. C.
Raziudin Y. Moosajee ..... Ranson

**Kanawha**

Bharat Agarwal ..... Elkview
Farooq P. Agha ..... South Charleston
Jerill D. Cavender ..... Charleston
Rodney Douglas Dean ..... South Charleston
Bruce Alan Foster ..... " "
Gorli Harish ..... Charleston
John Battle Haslam ..... "
Ruben W. Holland, Jr. ..... South Charleston
Arthur Evans Kelley ..... Charleston
Josiah K. Lilly III ..... "
Raymond A. Lim ..... "
Mian Abdul Majeed ..... "
Brittain McJunkin ..... "
Patrick K. Murray ..... Dawes
Erdulfo S. Romero ..... Charleston
Thompson Embleton Pearcy ..... "
Richard J. Sexton ..... "
M. A. Siddiqui ..... "
Tracy N. Spencer ..... South Charleston
James M. Squire ..... Charleston
Muhib S. Tarakji ..... South Charleston
Shirley Willis Trammell ..... Charleston
Gregory Randall Wagner ..... Dawes

**Logan**

Y. S. Choi ..... Man
Leandro P. Galang ..... Logan
Rolando U. Layos ..... Man
Jose Pritchard ..... Holden
Chanchai Tivitmahaisoon ..... Logan

**Marion**

V. R. Anumolu ..... Fairmont
Susan K. MacKinnon ..... "
T. S. Miller ..... "
S. K. P. Mulpuru ..... "
Chung Heng Tsi ..... "

**Mason**

Harry L. Amsbary ..... Gallipolis, Ohio
Mateo P. Dayo ..... New Haven
Zinnia A. B. Dayo ..... " "
Samuel P. McNeill ..... Pt. Pleasant
John A. Wade, Jr. ..... " "

**McDowell**

Purnendu P. Datta ..... Welch
Zia M. Jaghory ..... "
T. N. Krishnamoorthy ..... "
John P. Lutz ..... Algoma
Ross M. Patton ..... Gary

**Mercer**

Timothy Morgan ..... Princeton

**Mingo**

Luis Adongay ..... Kermit
James G. Hackett ..... Williamson
Mahmood Hosseinipour ..... "
Leo Pajarillo ..... "
Nilkhanth Purohit ..... "

**Monongalia**

H. V. Dedhia ..... Morgantown
Dinesh M. Doshi ..... "
Joseph Horton ..... "
David M. Morgan ..... "
Jan E. Palmer ..... "
Wade B. Stoughton ..... "
John S. Veach ..... "
Barbara Wooley ..... "

**Ohio**

Azmi Abdel-Messih ..... Wheeling
Robert B. Altmeyer ..... "
Dennis Burech ..... "
Edward Y. Lai ..... "
George P. Naum, Jr. ..... "
William L. Noble ..... "
Thomas J. Schmitt ..... "
Thomas L. Stover ..... "
Thomas G. Wack, Jr. ..... "
N. R. Youssef ..... "

**Parkersburg Academy**

Gurprett S. Brar ..... Parkersburg
Precilla Famularcano ..... Spencer
R. D. Lattimer ..... Parkersburg
Vincent J. Mazzella ..... "
John W. Reyes ..... "

**Potomac Valley**

Kanai L. Das ..... Petersburg
Alfred M. Palmer ..... Augusta
Sodtha Surattamont ..... Romney

**Preston**

Stanley Solinsky ..... Newburg

**Raleigh**

Roberto G. D. Concepcion ..... Beckley
Emilio H. Delgado ..... "
Michael T. Webb ..... "
Nancy R. Webb ..... "

**Summers**

Chaitanya K. Agarwal ..... Hinton
Saryu P. Dani ..... "
Rajnikant C. Shah ..... "

**Tygart's Valley**

Alan M. Fuller ..... Elkins
Jose M. Hori ..... "
Nirmal Kanal ..... Philippi
Farukh Ahmed Khan ..... Elkins
Robert O'Donnell ..... "
David Snyder ..... Philippi

**Wetzel**

Faustino V. Garcia, Jr. ..... New Martinsville

# Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Principles of Clinical Electrocardiography, 10th Edition*, by Mervin J. Goldman, M. D. 415 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Annual Review of Neuroscience, Volume 2*, W. Maxwell Cowan, Editor, and Zach W. Hall and Eric R. Kandel, Associate Editors. 555 pages. Annual Reviews, Inc., 4139 El Camino Way, Palo Alto, California 94306. 1979.

*Correlative Neuroanatomy & Functional Neurology, 17th Edition*, by Joseph G. Chusid, M. D. 464 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Clinical Concepts of Immunology*, edited by Robert H. Waldman, M. D. 263 pages. Price $19.50. The Williams & Wilkins Company, Baltimore, Maryland 21202. 1979.

*Growth Standards in Children*, by Herbert H. Pomerance, M. D., with a contribution by John M. Krall, Ph. D. 225 pages. Price $25. Harper & Row, Publishers, Inc., P. O. Box 7777 — RO200, Philadelphia, Pennsylvania 19175. 1979.

*Review of Medical Physiology, 9th Edition*, by W. F. Ganong, M. D. 618 pages. Price $14. Lange Medical Publications, Los Altos, California 94022.

## WVU Cleft Palate Teaching Day October 19

"Clinical Management of the Cleft Palate Patient" will be the subject for West Virginia University Medical Center's Second Annual Cleft Palate Teaching Day to be held on October 19 at the Lakeview Inn in Morgantown.

The interdisciplinary course is approved for 0.7 CEUs and is designed for all interested individuals involved in the treatment of patients with cleft palates.

Members of the WVU Cleft Palate Team are Edwin V. Kluth, D.D.S., who will preside, and Janusz Bardach, M. D., the lecturer. The team will present the basic aspects of pediatrics, genetic counseling, otolaryngology, speech therapy, radiology, pediatric dentistry, orthodontics and maxillofacial prosthodontics as they relate to treatment of the patient with velopharyngeal insufficiency.

Special emphasis will be placed on the plastic surgical techniques of primary palatal closure and secondary palatal procedures by Doctor Bardach, who is Chairman of the Division of Plastic and Reconstructive Surgery of the Head and Neck, University of Iowa.

There will be a registration fee of $40, including lunch, which should be paid before September 28.

For additional information, contact the Director of Continuing Education, School of Dentistry, WVU, Morgantown 26505 (telephone 304-293-3549).

## Seminar On Balance Disorders Planned In Wheeling

Four out-of-state speakers will participate in a one-day course on balance disorders sponsored by Wheeling Hospital on September 20.

The educational offering, entitled, "The First Continuing Education Course on Balance Disorders," will be held from 8:25 A. M. through 4:45 P. M. in Seminar Rooms A and B at the hospital.

The speakers and topics will include:

"Anatomy and Physiology"—Muriel D. Ross, Ph. D., Associate Professor of Anatomy, University of Michigan School of Medicine, Ann Arbor; "Diagnosis and Evaluation" and "Electronystagmography"—Sidney N. Busis, M. D., Clinical Professor of Otolaryngology, University of Pittsburgh School of Medicine; "Hyperlipoproteinemia and Vertigo"—James T. Spencer, M. D., Clinical Professor of Otolaryngology, West Virginia University Medical Center, Charleston Division;

"Basilar-Vertebral Artery Insufficiency"—B. Todd Troost, M. D., Associate Professor of Neurology and Ophthalmology, University of Pittsburgh School of Medicine; "Aged Otoliths"—Doctor Ross; "Management of Hyperlipoproteinemia"—Doctor Spencer;

"Abnormal Glucose Metabolism"—DeWitt E. DeLawter, M. D., Clinical Professor of Medicine, Georgetown University School of Medicine, Washington, D. C.; "Ocular Vertigo"—Doctor Troost, and "Hypoglycemia"—Doctor DeLawter.

For further information, contact Hong I. Seung, M. D., Wheeling Hospital, Medical Park, Wheeling 26003.

## Marshall University Enrolls 36 Medical Students

The Marshall University School of Medicine's 1979-80 entering class of medical students includes 34 West Virginia residents and one each from Ashland, Kentucky, and Ironton, Ohio.

The majority of the 36 students are from smaller, rural communities, according to Cindy Mullens, medical school admissions officer. The students, who include seven women, range in age from 21 to 37, with the average age being 23.6 years, Ms. Mullens said.

Members of the entering class are: Frederick D. Adams and R. Mark Hatfield, both of Logan; James W. Endicott, Kermit; Sandra L. Tabor, Switzer; Philip N. Zambos, Beckley; Larry D. Mann and Bradley R. Martin, Princeton; Mark K. Stephens, Madison; Gerald G. Blackwell, Gauley Bridge;

Denise E. Clay, Gilbert; Leo Richard Boggs, Jr., Danville; Ronald DeAndrade, Jr., Buckhannon; Bijan J. Goodarzi, Elkins; Craig L. Bookout, Philippi; David A. Brosius, Sutton; Harry J. Magee, Reginald J. McClung, Daniel B. Prudich and Garrie J. Haas, Jr., all of Charleston; Mary Beth Butcher, Glenville; W. Douglas Given, Strange Creek (Braxton County);

Wayne C. Groux and Donna S. Wolodkin, both of Wheeling; John L. Hahn, Wardensville; Kelly M. Pitsenbarger, Franklin (Pendleton County); Hobart K. Richey, Wellsburg; William E. Muth, Morgantown; Paul R. Durst, Point Pleasant; Lou Gene Kingery and Samuel D. Wellman, both of Kenova; Albert J. Exner, James D. Hoffman, William S. Sheils, Jr. and Carol M. Spencer, all of Huntington; Karen N. Dansby, Ashland, Kentucky, and Daniel B. Ray, Ironton, Ohio.

Most of the students graduated from Marshall University and West Virginia University. Other schools represented include: Alderson-Broaddus College, Davis and Elkins College, Glenville State College, Morris Harvey College, West Liberty State College, West Virginia Institute of Technology, Wheeling College, Georgetown University, Illinois College of Optometry, Michigan State University, Ohio Wesleyan University, University of Cincinnati, University of Kentucky, Valparaiso (Indiana) University, Washington and Jefferson College and University of Wisconsin at Green Bay.

This class, which includes the first Ohio resident to be admitted, will be the third one enrolled since the school opened in January, 1978.

## Wheeling Clinic Seminar Program Announced

The program has been announced for Update '79, a two-day scientific seminar in medicine and surgery to be held by Wheeling Clinic September 21-22 at Wilson Lodge in Oglebay Park in Wheeling.

William P. Steffee, M. D.

The speakers and their topics for Friday morning, September 21, will be:

"Drug-Induced Extrapyramidal Reactions" and "Recent Advances in Psychopharmacotherapy" — Frank J. Ayd, Jr., M. D., Director of Professional Education and Research, Taylor Manor Hospital, Baltimore; and Professor of Psychiatry, West Virginia University Medical Center, Charleston Division; "Seizure Disorders and New Medications"—Gerald D. Timmons, M. D., Chief of Neurology, Akron (Ohio) Children's Medical Center; "Intracranial Pressure"—Henry L. Kettler, M. D., Department of Neurology, Wheeling Clinic, and "Current Concepts in Management of Head Trauma" — Robert G. Selker, M. D., Chief of Neurosurgery, Montefiore Hospital, Pittsburgh.

Following the above addresses, workshops will be held in psychiatry and neurology until noon.

Friday afternoon speakers and topics (through 2:30) will include "Use and Abuse of Antibiotics in Surgery"—Martin F. Hayes, M. D., Assistant Professor of Surgery, Hahnemann Medical College and Hospital, Philadelphia; "Office-Based Nonstress Testing in Antepartum Period" — Jack C. Amato, M. D., Chairman, Department

E. Alan Paulk, Jr., M. D.

Jane Pauley

of Obstetrics and Gynecology, East Liverpool (Ohio) City Hospital;

"The Common Dermatoses — Diagnosis and Treatment"—Paul S. Porter, M. D., Chief, Department of Dermatology, University of Pittsburgh School of Medicine, and "Ether Treatment for Herpes"—K. W. Waterson, M. D., Department of Dermatology, Wheeling Clinic.

Workshops in dermatology and surgery, continuing until 4 P. M., will be held following the above talks.

The remainder of the Friday afternoon program, "General Current Concepts," will include "Current Concepts in Joint Replacement"—Edgar L. Barrett, M. D., and Richard G. Glass, M. D., both in the Department of Orthopedics, Wheeling Clinic; "Calculi, Cancer and Chemotherapy"—John P. Franz, Department of Urology, Wheeling Clinic; "The Current Approach to Retinal Vascular Disease"—Milton E. Nugent, M. D., Department of Ophthalmology, Wheeling Clinic, and "Early and Late Results of Femoro-Popliteal and Vein Grafts for Limb Survival"—Charles D. Hershey, M. D., Department of Surgery, Wheeling Clinic.

**Saturday Morning Program**

A general scientific session will be held Saturday morning, beginning with an 8 o'clock film on "Hydraulics of Hypertension: New Insights for Patient Management."

Speaking will be Edward L. Quinn, M. D., Chairman, Department of Infectious Diseases, Henry Ford Hospital, Detroit, on "Antibiotics Update;" Byron L. VanPelt, M. D., Department of Internal Medicine, Wheeling Clinic, "Legionnaire's Disease;" William P. Steffee, M. D., Assistant Professor of Medicine, Director of Clinical Nutrition Unit, Boston University Hospital; "Concepts of Enteral Hyperalimentation;" Robert S. Zeiders, M. D., Carle Clinic Association, Urbana, Illinois, "Arthritis and Rheumatism;"

E. Alan Paulk, Jr., M. D., Clinical Associate Professor of Medicine, Emory University School of Medicine, Atlanta, "Consideration in the Selection of Proper Arrhythmic Agents;" Carlos A. Vasquez, M. D., Department of Internal Medicine, Wheeling Clinic, "Chemotherapy — Carcinoma of the Testicle;" and Marc A. Pohl, M. D., Department of Hypertension and Nephrology, Cleveland Clinic, "Hypertension—Nephroallergy."

Doctor Ayd will deliver the Fulton Memorial Lecture at 1 P. M. His subject will be "The Future of Psychopharmacology." Prior to this address, Doctor Hershey will discuss the "History of Fulton Memorial Lecture." Doctor Ayd will be introduced by Stephen D. Ward, M. D., Department of Psychiatry, Wheeling Clinic.

Other Saturday afternoon presentations will be:

"Renal Failure and Management Aspects of Renal Failure"—Andrew Whelton, M. D., Johns Hopkins Hospital, Baltimore; "Dialysis and Transplants"—Derrick L. Latos, M. D., Department of Internal Medicine, Wheeling Clinic;

"The Periodic Health Examination"—T. Gary Kenamond, M. D., Department of Internal Medicine, Wheeling Clinic, and "Good Vibrations: A Suprasonic Trip"—William E. Noble, M. D., Department of Internal Medicine, Wheeling Clinic.

**Speaker From 'Today Show'**

Following the above talks, workshops will be held for the remainder of the afternoon in nephrology and hypertension, hyperalimentation, and infectious diseases.

Jane Pauley of NBC-TV's "Today Show" will be the special guest speaker for the Saturday evening banquet.

Registration for Update '79 is limited to 150 physicians. The program has been approved for 16 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association; and also is expected to be approved for 16 hours of credit by the American Academy of Family Physicians.

The registration fee of $75 will include admission to luncheons, evening entertainment and dinners for registrants and their spouses. Registrations may be sent to Update '79 Committee, Wheeling Clinic, Wheeling 26003.

Registrants are responsible for their own lodging; however, a block of rooms is being held at Wilson Lodge in Oglebay Park. For reservations there, contact Justina Gabbert at (304) 242-3000.

## Doctor Svoboda Writes Book On Epilepsy

A new text, "Learning About Epilepsy," has been published by William B. Svoboda, M. D., of Morgantown.

Doctor Svoboda, a pediatric neurologist, is Associate Professor of Pediatrics and Neurology, and Director of the Learning Disability Clinic at West Virginia University Medical Center.

"This text grew out of the West Virginia University Medical Center Pediatric Neurology program and originated as a manual designed for

the Colin Anderson institution [state Center for mentally retarded children at St. Mary]," Doctor Svoboda said. "In response to requests, the text has been condensed into this effort to present a comprehensive review of epilepsy and its consequences for the use by both patients and providers such as physicians, nurses, educators, mental health counselors and others."

The 256-page, illustrated paperback was published by University Park Press in Baltimore. The publisher refers to the book as "an authoritative introduction for patients, their families, and students."

## 'Drug Alert' Informs Physicians Of Drug Therapy Advances

An ever-growing number of new drugs on the market, coupled with constant changes in existing drug knowledge, may create a challenge for physicians to keep alert to drug therapy advances.

Donald S. Robinson, M. D.

"Drug Alert," a publication developed by Dr. Donald S. Robinson, Pharmacology Department Chairman at Marshall University's School of Medicine, may be one answer to that problem.

One of the few such publications in the nation, "Drug Alert" provides "a single-source overview in a brief and efficient manner so that a physician can read it and quickly obtain basic information on a class of drugs or how to treat a particular medical problem," said Doctor Robinson, who holds professorial rank in medicine as well as in pharmacology.

Huntington-area physicians received their first copies of this periodic news letter in June as a continuing education service of the MU Medical School. The West Virginia Pharmaceutical Association also is making copies available to pharmacists across the state.

While new to the region, "Drug Alert: An Objective Drug News Service for the Health Sciences" is not a new publication. Doctor Robinson initiated the news letter in 1971 while on the University of Vermont's Medical School faculty. He has more than 100 colleagues and former students who subscribe to "Drug Alert" for a nominal fee.

"Only one topic per issue is examined," Doctor Robinson said. "The topics are chosen with emphasis on treatment of the more common disorders or as a review of a major class of drugs —particularly where there have been changes," he explained.

"There is a wealth of material available from pharmaceutical firms relating to their specific products, but there are few publications which fully explore types of drugs and their effects. 'Drug Alert' was created to fill this vacuum," he said.

"We don't limit ourselves solely to dealing with drugs, but are concerned with the overall management of medical problems, which may include diet and exercise as well as medication. There's an equal emphasis on appropriate non-drug management," Doctor Robinson pointed out.

The most recent issue dealt with drug bioavailability or the physiological availability of a given amount of a drug as opposed to its chemical potency.

### Educational Tool

Not only is this news letter a continuing education device for health professionals, but it is also an effective educational tool for medical students and residents, according to Doctor Robinson, who added that copies are distributed to Marshall medical students and residents.

"Its teaching value lies in providing a follow-through on material previously presented to students during their basic sciences lectures. It also provides standard approaches to treatment within the area medical centers," he said.

Assisting Doctor Robinson with the publication are various faculty members from his own department and the Department of Medicine, who comprise an editorial board.

They include: Drs. Roger F. Leonard, Donald E. Melnick, Gary O. Rankin, Peter Knott, Lee Van Voris, assistant professors, and Dr. Robert Belshe, Associate Professor.

"The board members discuss possible topics and the writing of a rough draft is assigned to someone with an interest in the topic. Then the rough draft faces a series of revisions by the full board," Doctor Robinson explained.

He said he anticipates publishing about six issues annually.

## Auxiliary Completes Program For 55th Annual Meeting

Mrs. Ben Johnson, Jr., of Bessemer, Alabama, will be among honor guests when the Auxiliary to the West Virginia State Medical Association holds its 55th Annual Meeting at the Greenbrier in White Sulphur Springs August 22-25.

The meeting again will be held concurrently with the Annual Meeting of the State Medical

Mrs. Ben Johnson, Jr.

Mrs. Baxter S. Troutman

Association. Mrs. Johnson was installed in June as the new President of the American Medical Association Auxiliary.

Also addressing the Auxiliary will be Mrs. Baxter S. Troutman of Lenoir, North Carolina, President of the Woman's Auxiliary to the Southern Medical Association.

More than 200 wives of Physicians are expected to attend the Auxiliary's business sessions, over which Mrs. D. Sheffer Clark of Huntington, the Auxiliary's President, will preside.

### Preconvention Meetings

An invitation has been extended to all Auxiliary members to attend the first session of the State Medical Association's House of Delegates on Wednesday, August 22, at 3 P. M. Dr. Hoyt D. Gardner, President of the American Medical Association, will be the principal speaker.

Mrs. Clark then will preside at a 4 P. M. preconvention Auxiliary Board meeting in the Fillmore-Van Buren Rooms.

### Opening Convention Exercises

Members of the Auxiliary also have been invited to attend formal opening ceremonies of the State Medical Association's 112th Annual Meeting at 9 A. M. on Thursday, August 23, in the theater. Dr. Michael J. Halberstam of Washington, D. C., Editor-in-Chief of *Modern Medicine*, will deliver the seventh annual "Thomas L. Harris Address."

Following the opening exercises, the Auxiliary members will go to the Fillmore-Van Buren Rooms for the formal opening of their convention, with Mrs. Clark in charge.

### First General Session

The keynote address by Mrs. Johnson will highlight the initial session at 9:45 A. M. Dr. Robert D. Hess of Clarksburg, President of the State Medical Association, will be recognized for brief remarks.

Mrs. Johnson previously served on the national level as President-Elect, First Vice President, Director, and Chairman of the AMA-ERF and By-laws committees.

She has held state auxiliary posts of President, an ALAPAC Director, and Chairman of the AMA-ERF, Nominating, and Mental Health committees.

Mrs. Johnson has been President of her local National Association of Parliamentarians unit and on the state board. She has been Regent of her local DAR and served on that state board also. Currently, she serves on the boards of her county mental health association and the Jefferson County Society for Crippled Children and Adults.

She has been named Bessemer Woman of the Year and Club Woman of the Year. The University of Alabama School of Medicine has recognized her exceptional contributions to medical education and fields of health, and her alma mater, Illinois College in Jackson, Illinois, honored her for Distinguished Service.

Mrs. Johnson and her husband, Ben, a general surgeon, have three married children and three grandchildren. Ben III is presently serving as Chief Surgical Resident at the Mayo Clinic, Rochester, Minnesota; John is Vice President and Projects Manager of Fisk Electric Company in Houston; and Nancy is serving a residency in anesthesiology in Atlanta.

Among Mrs. Johnson's personal interests is gardening. She makes a regular practice of chaperoning student travel groups, an activity that has taken her to the Orient and India. She is an avid reader and was social editor of her local newspaper until recently.

### Other Opening-Session Items

Other opening-session items will include the introduction of the convention Chairman, Mrs. M. Bruce Martin of Huntington; reports from officers and committee chairmen, recommendations from the preconvention board meeting, election of the 1980 Nominating Committee, and

**Mrs. D. Sheffer Clark**

introduction of component Auxiliary Presidents by the Regional Directors.

**Bridge, Golf, Past Presidents' Breakfast**

A bridge tournament beginning at 2 P. M. will be held on Thursday in the Trellis Lobby. The Central West Virginia Auxiliary will serve in the hostess role, with Mrs. Claude R. Davisson of Weston as Chairman.

Golf may be played either Thursday or Friday afternoon. Monongalia County, with Mrs. George A. Curry of Morgantown as Chairman, will be hostess.

At 8 A. M. on Friday, August 24, the Past Presidents' breakfast will be held in the Virginia Room, with Mrs. Joseph T. Mallamo of Fairmont presiding.

**Second General Session**

The Second General Session at 9:45 A. M. on Friday in the Fillmore-Van Buren Rooms again will have Mrs. Clark presiding, with a highlight to be the address by Mrs. Troutman.

Other activities will include presentation of AMA-ERF Awards by Mrs. Charles E. Andrews of Morgantown, State AMA-ERF Chairman, and Mrs. J. L. Mangus of Charleston, National Eastern Region Chairman, to Dr. John E. Jones, Dean, West Virginia University School of Medicine, and Dr. Robert W. Coon, Dean, Marshall University School of Medicine.

Mrs. Johnson will install new officers, and Mrs. Clark will deliver her inaugural address.

**Friday Social Functions**

The Raleigh County Auxiliary, with Mrs. Prospero B. Gogo of Beckley as Chairman, will be hostess for tennis on Friday afternoon.

As noted, golf may be played either Thursday or Friday afternoon.

"Monte Carlo Night," beginning at 10 P. M., will be held in Chesapeake Hall, The Cabell County Auxiliary, with Mrs. Charles E. Turner of Huntington as Chairman, will be hostess. Tickets may be purchased at the registration desk.

**Postconvention Board Meeting**

Mrs. Clark will preside at the postconvention conference and board meeting at 10 A. M. on Saturday, August 25, in the Fillmore-Van Buren Rooms.

**Saturday Afternoon Agenda**

Auxiliary members are invited to attend the second and final session of the State Medical Association's House of Delegates on Saturday at 2:30 P. M., at which time Dr. Stephen D. Ward of Wheeling will be installed as the Association's President, and other Association officers will be elected.

**Other Convention Matters**

Those Auxiliary members who plan to participate in bridge, golf and tennis are urged to sign up in advance at the registration desk.

## State To Host September Ob-Gyn Meeting

West Virginia obstetricians and gynecologists will serve as hosts and hostesses for the 50th Anniversary meeting of the Central Association of Obstetricians and Gynecologists to be held September 21-23 at the Greenbrier in White Sulphur Springs.

Dr. John B. Nettles of Tulsa, Oklahoma, is President of the organization, and Dr. Charles A. White, Jr., Professor and Chairman of Obstetrics and Gynecology at West Virginia University School of Medicine, is a member of its board of trustees.

The Local Arrangements Committee, with Co-Chairmen Doctor White and John J. Battaglino, Jr., M. D., of Wheeling, and the West Virginia Obstetrical and Gynecological Society, are assisting in the planning.

### WVU Co-Sponsor

The meeting is co-sponsored by the WVU Department of Continuing Medical Education, is approved for credit in Category 1 of the American Medical Association's Physician's Recognition Award, and will receive recognition by the American College of Obstetricians and Gynecologists (ACOG).

There will be a guest registration fee of $150 for non-members, except members of the West Virginia Obstetrical and Gynecological Society, medical students, house officers and members of the military who are exempt.

A special session of The Central Association will convene following dinner on Thursday evening, September 20, at 8:45 in Colonial Hall. This session, for members, guests and spouses, will be devoted to a historic review of the first 50 years of the organization.

The regular scientific program will begin at 8:30 A. M. on Friday, September 21, with a first-day session theme of "Organized Medicine and the Obstetrician-Gynecologist." The opening-day program will include: the presidential address, the guest speaker's address by Martin L. Stone, M. D., of Stony Brook, New York, who is President-Elect of ACOG, and a symposium including several persons of national distinction to discuss various topics included in the theme.

### Scientific Presentations

The remainder of the program on Friday, Saturday and Sunday mornings will include traditional scientific presentations, including three award papers chosen for their excellence. The topics for the scientific presentations will be:

"Ultrasonic Evaluation of Postpartum Uterus in the Management of Postpartum Bleeding," "Genetics and Familial Aspects of Endometriosis," "Clinical Characteristics of Familial Endometriosis," "Antenatal Corticosteroids to Prevent Neonatal RDS: Cost Versus Benefit Considerations," "The Effect of Estrogen and Placebo Priming on Induction of Labor with Prostaglandins," "Uterine Anomalies: Recognition and Management;"

"Extraperitoneal Surgical Approach to the Pelvis after Radiation Therapy or Radical Surgery," "Alternative Birthing Center Experience on a Teaching Obstetrical Service," "*Haeomphilus Vaginalis* Vaginitis After 20 Years," "Pregnancy Outcome and Other Upper Genital Tract Anomaly in the DES-Exposed Offspring," "Manpower for Obstetrics-Gynecology II — Characteristics of Patients; Their Diagnosis and Care," "Ectopic Pregnancy: A Five-Year Review of 201 Cases," and "Attitudes of Adolescents Toward Pregnancy and Contraception."

The award papers will be entitled "Binding of Medroxyprogesterone Acetate in Human Breast Cancer," "Total and Free Testosterone During Pregnancy," and "The Objective Evaluation of Dysmenorrhea Therapy."

### Mrs. Rockefeller to Speak

Ladies are invited to hear Mrs. Sharon Rockefeller, wife of West Virginia Governor John D. Rockefeller IV, speak at 9:30 A. M. on Friday in the Eisenhower Room. On Saturday morning, ladies are invited to a culinary demonstration by the Greenbrier chef, Mr. Wernes Stoessel.

Programs with abstracts may be obtained prior to the meeting by a written request to David G. Anderson, M. D., Secretary-Treasurer, The Central Association of Obstetricians and Gynecologists, Women's Hospital, University of Michigan Medical Center, Ann Arbor, Michigan 48109.

## Troubled MMIS System Hits New Roadblock

A Kanawha Circuit Court decision which invalidated a state contract awarded a Virginia computer firm has delayed indefinitely West Virginia Department of Welfare plans to install its Medicaid Management Information System (MMIS).

A story in the news section of the May issue of *The West Virginia Medical Journal* reviewed in detail features of the system, which was scheduled to go into effect for hospitals and pharmacies in July, and physicians as well as all other providers in August.

The latest delay, to be appealed, represents another critical problem in an ill-starred program dating back several years, and representing a substantial outlay of money. A previous contractor ran into financial problems before the system could go on the line.

The Department of Welfare had contracted with Virginia Computer Company (TVCC) for the new highly computerized system to process invoices submitted to the agency for payment, and to perform certain other functions. Welfare Commissioner Leon H. Ginsberg offered this explanation to providers regarding the new roadblock:

"The State of West Virginia had selected TVCC through a competitive bid process as the company to install and operate the MMIS. Electronic Data Systems Federal (EDSF), one of the

other companies who bid on the MMIS, instituted Court action when TVCC was declared the low bidder. As a result of their action, the Court has decided that neither TVCC nor EDSF should be awarded the contract. Therefore, all activities related to the Department of Welfare's MMIS have been indefinitely discontinued until further notice.

"All providers are requested to please continue billing the Department of Welfare for services as they have in the past, using existing Department of Welfare billing forms and procedures. *All instructions concerning new billing forms and procedures provided by TVCC staff to pharmacies and hospitals in their recent training sessions should be disregarded.*

"We sincerely wish to apologize for this discontinuance of our MMIS activities; but in light of the Court's action, we have no alternative at this time."

## Brothers, Sister Among 88 In New WVU Class

Two brothers from McDowell County and a sister and brother from Fayette County are among the 88 students accepted by the West Virginia University School of Medicine for its first-year class this fall.

Consisting of 72 men and 16 women, the class will include 84 West Virginians and one resident each of four other states.

The West Virginians represent 27 counties. Thirteen listed Monongalia County as their residence. Kanawha County had 10, Marion six and Cabell and Ohio five each.

Those admitted completed their undergraduate work at 37 different institutions—47 were students at WVU, 16 attended Marshall University or colleges in West Virginia, and 25 attended 24 different out-of-state colleges or universities. Nine of those accepted have degrees past the bachelor's level.

Selection of the new class was again a difficult task for the 12-member Committee on Admissions. Applications were sent to 322 West Virginians and 149 out-of-state residents and were returned by 224 West Virginians and 96 from other states. Interviews were granted to 221 residents and 32 non-residents.

The grade point average for accepted candidates this year was 3.52, and the science average was 3.50 (4.0 is perfect—all A's).

Members of the class include:

BARBOUR COUNTY: Philippi — Alan L. Myers.

BERKELEY COUNTY: Martinsburg—Karen M. Gross, Richard Jackson and Michael B. Voorhees.

BRAXTON COUNTY: Flatwoods — Janet E. Cogar.

BROOKE COUNTY: Colliers — Cynthia J. Cline.

CABELL COUNTY: Barboursville — Lester Labus; Huntington—William B. Dennison, William R. Simms, Thomas J. Soltis and Cynthia A. Winger.

DODDRIDGE COUNTY: Wallace—Christian R. Kerns.

FAYETTE COUNTY: Charlton Heights — William D. Rose; Gauley Bridge—Gregory D. Snodgrass, and Glen Ferris—Josephine M. and Leland S. Kwei.

GILMER COUNTY: Glenville — Steven W. Collins.

GRANT COUNTY: Mount Storm—Larry W. Moreland.

GREENBRIER COUNTY: Lewisburg—Arif A. Alidina.

HANCOCK COUNTY: New Manchester — Mark K. Greathouse, and Weirton — Kim B. Carey, Vincent P. Kolanko and John S. Koval.

HARRISON COUNTY: Bridgeport — Phillip R. Stevens, and Clarksburg—Michael T. Angotti and John A. Mardones.

JACKSON COUNTY: Ravenswood — David M. Ritchie.

JEFFERSON COUNTY: Harpers Ferry — Amalia D. Gallo, and Shepherdstown—Marc A. Bates.

KANAWHA COUNTY: Charleston—Brad R. Cohen, Stephen L. Drasnin, Lynn H. Harris, John A. Lane, David C. Martin, Frederick E. Moore and Stuart W. Point; St. Albans—James W. Wallace and Sanjay S. Yadav, and Sissonville—Daniel L. Smith.

MARION COUNTY: Fairmont — Robert W. Koss, Sharon F. Padden, Lee A. Pyles, Gary J. Renaldo and Ralph A. Sellers II, and Mannington—Harold G. Ashcraft.

McDOWELL COUNTY: Iaeger — Robert D. Allara; Keystone—Van J. Daniels, and Northfork—Tyrone L. Daniels.

MERCER COUNTY: Matoaka—William C. Bird, and Princeton — Joseph J. Filipek and Gary R. Meade.

MINERAL COUNTY: Burlington—Robert N. Shobe.

MONONGALIA COUNTY: Morgantown — Wayne R. Brearly, Glenna A. Cather, Dirk C. Davidson, Karen M. Fanucci, Patrick R. Felice, Thomas L. Hurt, Jocelyn L. James, Robert A. Leadbetter, Charles L. Rolfe III, Sydney G. Short, Jack R. Steel, Jane Thrush and Vincent C. Traynelis.

OHIO COUNTY: Wheeling—Natalie J. Colapelle, Lee C. Drinkard, Linda S. Gray, Mark C. Kenamond, William F. Lestini and Loren M. Meyer.

PLEASANTS COUNTY: St. Marys—Daniel W. Wilson.

PUTNAM COUNTY: Scott Depot—Gavin N. Hogue, David T. Kirk and Stephen R. Powell.

RALEIGH COUNTY: Beckley—Jeffrey P. Hogg and John M. Zambos, and Shady Springs —Henry L. Setliff.

RANDOLPH COUNTY: Montrose—Howard E. Purdum.

UPSHUR COUNTY: Buckhannon — Patton V. Nickell.

WOOD COUNTY: Parkersburg—Michael S. Moses, Lawrence N. Payne, David B. Rymer and Mark R. Weiser.

OUT-OF-STATE: Alabama, Huntsville — Joseph D. Dye; California, Santa Barbara—Janis E. Reed; Maryland, Oakland—Mark T. Domenick, and Pennsylvania, Pittsburgh—Susan L. Koletar.

## Constitution, By-Laws Changes Up For Vote In House

Two sets of proposed amendments to the State Medical Association's Constitution and By-Laws will be subject to amendment and further action leading to approval or disapproval at the first House of Delegates session, August 22, during the 112th Annual Meeting at The Greenbrier.

One group of amendments, carrying out in large measure an earlier mandate of the House, would set up a new membership classification in the Association for medical students; provide for representation in the House for Resident and Medical Student Sections; and establish, in the By-Laws, guidelines under which specialty societies and sections established by the House should be organized for educational and other activity.

The other amendments up for a vote would provide for increased representation on the Medical Association's Council as an Association District reaches certain levels of membership. As introduced, a District (the Association has 14 embracing all sections of the state) would be entitled to a second Councilor when membership in the Association reaches 200; and an additional Councilor for each 100 members in excess of 200.

The effect of this package, if in effect now, would increase the District members currently standing at 15 (because District XI including Kanawha, Putnam, Boone and Clay Counties already has two Councilors) to 19. District XI would get a third Councilor with a membership well over 300, with Districts I (Hancock, Brooke, Ohio and Marshall), III (Monongalia and Preston) and X (Cabell, Mason, Wayne and Lincoln) each gaining a second Councilor.

To meet requirements for circulation of the proposed amendments among the membership, the complete proposals follow—with new language shown in italics and material to be deleted enclosed in parentheses.

### PROPOSED AMENDMENTS TO THE CONSTITUTION

*(To Be Acted Upon Finally At the First Session of the House of Delegates During the 1979 Annual Meeting)*

#### Article IV.—Composition

Sec. 1. This Association shall consist of active, retired, honorary and *student members.*

Sec. 2. Members. Membership in the Association shall be limited to doctors of medicine licensed to practice in West Virginia who are members of a component medical society of the West Virginia State Medical Association; *and students enrolled in accredited schools of medicine in West Virginia granting Doctor of Medicine degrees.*

*Sec. 5. Student members shall be those persons enrolled in accredited schools of medicine in West Virginia granting Doctor of Medicine degrees who are qualified for membership under the By-Laws of this Association.*

#### Article V.—House of Delegates

Sec. 1. The House of Delegates shall be the legislative and business body of the Association, and shall consist of (1) delegates elected by the *component societies; (2) delegates elected by Resident Physician and Medical Student Sections;* and (3) the President, President-Elect, Vice President and Treasurer.

### Article XIV.—Amendments

Sec. 1. The House of Delegates may amend any article of this Constitution by a two-thirds vote of the delegates present at any annual session, provided that such amendment shall have been presented in open meeting at the previous annual session, and that it shall have been published twice during the year in THE WEST VIRGINIA MEDICAL JOURNAL, or sent offically to each component society *and student members whose names are listed on the official roster of the Association* at least two months before the meeting at which final action is to be taken.

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## PROPOSED AMENDMENTS TO THE BY-LAWS

### Chapter I.—Membership

Sec. 1. The name of a physician on the properly certified roster of members of a component society shall be prima facie evidence of membership in this Association, provided he has paid local and state dues and any current assessment, and provided further that he is licensed to practice medicine in West Virginia. *The membership also shall include, upon payment of state dues and any current assessment, a student enrolled and working toward a Doctor of Medicine degree, in any accredited school of medicine in West Virginia; provided, further, that the academic status of each medical student applicant for membership shall be certified by the dean of his medical school.*

Sec. 4. Each member in attendance at an annual session shall register and indicate the component society, *or Medical Student Section*, of which he is a member. When his right to membership has been verified by reference to the roster of his society *or Medical Student Section*, he shall receive a badge which shall be evidence of his right to all privileges of membership at that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provisions of this Section.

Sec. 7. Dues in the amount of $150 shall be payable annually on January first, of which amount $12 shall be earmarked for the Charles Lively Memorial Scholarship Fund of the West Virginia State Medical Association; except however, *that annual dues of members in residency programs and student members shall be $50 and $15, respectively;* and dues may be waived—upon nomination by a component society and approved by Council—for active members temporarily incapacitated for a minimum period of one year because of mental or physical illness. Any member whose dues have not been paid by April first shall be held to be delinquent and shall be automatically dropped from membership. Such member cannot be reinstated except by a majority vote of the component society, *or Medical Student Section*, of which he was a member taken prior to the end of the calendar year.

### Chapter IV.—House of Delegates

Sec. 2. Each component society shall be entitled to elect and send to the House of Delegates each year one delegate who shall be the society's secretary, and one additional delegate for every twenty (20) members or fraction thereof. A corresponding number of alternates shall be elected each year by each component society. *Resident Physician and Medical Student Sections as established under provision of Chapter IX of these By-Laws each shall be entitled to send to the House of Delegates one delegate each year chosen according to constitutions, by-laws or other organizational principles adopted by those sections and approved by the Council of the West Virginia State Medical Association. Each such section also shall be entitled to name one alternate delegate.* An alternate who is called upon to serve in place of a delegate who is not present shall be entitled to all the rights and privileges of such delegate to the House of Delegates. In case any of the regularly elected delegates or alternates be not present at an annual meeting, the members of the component societies, *or Resident Physician or Medical Student Sections*, to which they belong who may be present shall elect a delegate or delegates pro tem.

All county society delegates, except the secretary, shall be elected for two-year terms and when more than one delegate is to be elected, such delegates shall serve staggered terms so that the terms of only one-half the delegates, or major portion thereof, of each society, shall expire in any one year.

*(Note: The following proposed Chapter IX is new in its entirety.)*

### Chapter IX.—Sections and Societies

Sec. 1. The objectives of sections and societies organized under provisions of this Constitution and By-Laws are (a) to form closer professional relationships among physicians practicing in particular specialty areas; and among medical residents and students; and (b) to foster among physician members of particular specialties, and among residents and students, educational and other activities directed toward better patient care.

Sec. 2. Membership in a section or specialty society of licensed doctors of medicine shall be predicated upon at least one of the following: (a) a major portion of a physician's professional practice in the specialty involved; (b) appropriate board certification in the specialty involved; or (c) the meeting of specific membership requirements which a section or society might itself establish through adoption of its own Articles of Incorporation and/or Constitution and By-Laws. In any event, each section or society shall be the final determinant of a physician's qualification for membership.

Sec. 3. Each section or society shall elect its own officers according to procedures and/or Constitution and By-Laws mechanisms it adopts. It shall advise the Executive Secretary of the West Virginia State Medical Association of the results of each election within 10 days of such an election; and shall take other steps necessary to insure that a current roster of officers is on file with the Executive Secretary.

Sec. 4. Each section or society of licensed physicians shall establish and maintain a continuing medical education program for its membership. The specific format for such a program shall be developed by each section or society in accordance with the size and geographical location of its membership; objectives of particular significance to that society; and how such programs best can be directed toward better patient care.

Sec. 5. There is hereby authorized, within the membership framework of the West Virginia State Medical Association, establishment of Resident Physician and Medical Student Sections to (a) provide for direct participation of residents and medical students in educational, business and other activities of the Association; and (b) establish effective lines of communication among young physicians, physicians-to-be and their more senior colleagues. Each such section shall develop its own constitution and by-laws or other organizational procedures, and elect its officers, under provisions of Section 3 of this Chapter; provided, however, that such a constitution, by-laws or procedural mechanism shall not be inconsistent with principles of organization of the West Virginia State Medical Association, and shall be subject to approval by the Association's Council.

As provided in Chapter IV, Section 2, of these By-Laws, the Resident Physician and Medical Student Sections each shall be entitled to elect one delegate and one alternate to the Association's House of Delegates each year. Each section shall report to the Association's Executive Secretary by May 1 of each year the names of its delegates and alternate.

Amend the Chapter headings for Chapters IX and X as follows:

CHAPTER X.—COUNTY SOCIETIES

CHAPTER XI.—MISCELLANEOUS

CHAPTER XII.—AMENDMENTS

Sec. 1. These By-Laws may be amended at any annual session by a majority vote of the House of Delegates present at that session, after the amendment has lain on the table for one day; however, if any amendments conflict with any of the provisions of the Constitution, they shall not be effective until such time as the Constitution has been amended to conform therewith.

Sec. 2. Whenever an amendment to the By-Laws has been made, it shall be the duty of the Executive Secretary to notify the secretary of each component society, *and the secretary of the Resident Physician and Medical Student Sections,* within sixty days after it has become effective. It shall be incumbent upon each component society, *and Resident Physician and Medical Student Sections,* to make such changes in *their constitutions* and by-laws, or if the society be a corporation, in its code of regulations or other fundamental body of rules for the government of the corporation, as will bring about conformity to the change in the By-Laws of the West Virginia State Medical Association. Written notice of this compliance shall be sent to the Executive Secretary within six months of such notice.

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## PROPOSED AMENDMENTS TO THE CONSTITUTION

*(To Be Acted Upon Finally At the First Session of the House of Delegates During the 1979 Annual Meeting)*

Amend Article IX, Sections 1 and 2, to read as follows:

Sec. 1. The officers of this Association shall be a President, a President Elect who shall automatically succeed to the office of President, a Vice President, and Executive Secretary, a Treasurer, (fifteen) Councilors to be elected as provided in Section 2 of this Article, and three Councilors-at-Large, who shall be the retiring president and his two immediate predecessors.

Sec. 2. The officers, except hold-over Councilors, the President and the Executive Secretary, shall be elected annually. The terms of the

Councilors shall be for two years, (one from each Councilor District) with Councilors to be elected by the House of Delegates every second year as shall be provided for in the By-Laws for reapportionment of Council Districts. No Councilor shall be eligible to succeed himself after four years, as Councilor, but he may be elected after two years' absence from the Council. All these officers shall serve until their successors are elected and installed.

The term of the President, President Elect, Vice President, and Treasurer elected at the annual meeting in 1956 shall begin on January 1, 1957, and end on the last day of the meeting in that year. Thereafter, the term of the elective officers, except members of the Council, shall be for the period of one year beginning with the installation of the President at the final session of the House of Delegates at each annual meeting.

The term of office of Councilors shall be for a period of two years beginning with the installation of the incoming President and ending on the last day of the second succeeding annual meeting, except as provided in the By-Laws pertinent to reapportionment of Councilor Districts.

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PROPOSED AMENDMENT TO THE BY-LAWS

Amend Chapter VII, Section 11, by deleting material identified by enclosure within parenthesis; and substituting the new material, in italic.

Sec. 11. The tenure of all incumbent Councilors shall end with the adoption of this amendment and its conformity with the provisions in the Constitution. Thereafter, during the annual meeting at which such enabling amendments are adopted, there shall be elected one Councilor from each even-numbered Councilor District to serve for one year, and one Councilor from each odd-numbered District to serve a term of two years (except that District XI shall be entitled to two Councilors, to be elected in 1967, one for a one-year term and the second Councilor elected for a term of two years, and thereafter one shall be elected for a two-year term in each succeeding year) *with the exceptions that follow: Each Council District which has 200 members shall be entitled to two Councilors, to be elected in 1979, one for a one-year term and the second Councilor elected for a term of two years, and thereafter one shall be elected for a two-year term in each succeeding year. For each additional 100 members, a District shall be entitled to one additional Councilor, with such Councilor initially to be elected for a one-year term, and thereafter to a two-year term.*

PROPOSED AMENDMENT TO THE BY-LAWS

Amend Chapter VIII, Section 5 (o) to read as follows:

Sec. 5. (o). The Committee on Nominations shall consist of (seven) district Councilors, and the Junior Councilor-at-Large, who shall serve as Chairman. The Councilors from the odd-numbered districts shall serve as the Nominating Committee in odd-numbered years, and the Councilors from even-numbered districts shall serve in even-numbered years. (The Kanawha Medical Society shall select one of its two Councilors to serve on the Committee.) *Each Councilor District which has more than one Councilor shall be represented by its senior Councilor in point of service on the Committee.* This Committee shall consider and recommend to the House of Delegates, prior to the election of officers, in its final session, its nominee for the office of President Elect, Vice President, Treasurer and the AMA Delegate and Alternate. Nothing in this Section shall serve to prevent any nominations from the floor for these respective offices.

(Note: This proposed amendment is designed to make this Section consistent with the proposed change in Chapter VII, Section 11.)

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## Joint MU-WVU Doctoral Program Initiated

A new, interdisciplinary Doctor of Philosophy degree in Biomedical Sciences will be offered this fall at Marshall University jointly by the Marshall and West Virginia University Graduate schools.

Approved by the West Virginia Board of Regents in July, the joint doctoral program is the first of its kind to be offered on the MU campus, according to Paul D. Stewart, Ph. D., MU Graduate School Dean.

The new program will provide advanced educational opportunities for those persons interested in becoming research scientists or teachers in the basic science areas of biochemistry, physiology, pharmacology, microbiology and anatomy, the Dean said.

"The new program not only benefits potential students, but it also enhances the recruitment of quality faculty by providing them opportunities to engage in more effective research in partnership with graduate students," said Robert W. Coon, M. D., Vice President for Health Sciences and Dean of the School of Medicine. "The continued stimulation of a research program, coupled

with effective teaching, will result in a stronger undergraduate medical education program," he added.

A cooperative education effort between Marshall and West Virginia University, the courses will be taught primarily by members of Marshall's Medical School basic sciences faculty, who hold faculty appointments at WVU.

After a three-year period, the program will be reviewed by both schools. "This trial period is standard for any new program at West Virginia University," explained Dr. Frederick Lotspeich, MU Biochemistry Department Chairman, who is coordinating the Ph. D. program on Marshall's campus.

During the initial three years, three candidates may be admitted each year to the doctoral program.

"Actually the joint doctoral program is an extension of Marshall's own Master of Science in Biomedical Sciences degree program which was initiated in fall, 1977," Doctor Lotspeich said. Two students were graduated this spring from the master's level program and five currently are enrolled in it, the department head noted.

"We will be using Marshall's master's program in biomedical sciences as a base for the Ph. D. program," Doctor Lotspeich said. After completing an appropriate M. S. degree program, students planning to pursue the doctoral degree may be required to complete additional course work before taking the examination for candidacy into the Ph. D. program.

## Conference On Toxins In Food Scheduled In Detroit

The first national conference dealing with the problem of toxins in human food will be held September 23-26 in Detroit. Entitled "Toxic Substances in the Human Food Chain: Implications for Public Health Practice," the meeting will be held at the Radisson-Cadillac Hotel.

"The conference should be of value to all professionals concerned about the introduction—accidental or intentional—of toxic substances into the human food chain, and resultant effects on human life," according to Chairman Ralph E. Lewis, Executive Director of the Michigan Medical Schools Council of Deans. The program is being sponsored by the Michigan Public Health Association and the American Public Health Association.

# *Medical Meetings*

**Aug. 22-25—112th Annual Meeting, W. Va. State Medical Assn., White Sulphur Springs.**

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 6-8—National Breast Cancer Conference (Am. Cancer Society), New York City.

Sept. 12-13—Conference on Aging (St. Mary's Hospital), Huntington.

Sept. 12-16—Medical and Chirurgical Faculty of the State of Maryland, New Orleans.

Sept. 14-16—AMA Regional CME Meeting, Williamsburg, Va.

Sept. 15—Symposium on Malignant Melanoma (St. Mary's Hospital), Huntington.

Sept. 20—Balance Disorders (Wheeling Hospital).

Sept. 20-21—Hal Wanger Family Practice Conference, Morgantown.

Sept. 21-22—Update '79 (Wheeling Clinic), Wheeling.

Sept. 21-23—Central Assn. of Obstetricians & Gynecologists, White Sulphur Springs.

Sept. 23-25—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Sept. 25-27—Kentucky Medical Association, Louisville.

Oct. 4-6—Am. Neurological Assn., St. Louis.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-17—Indiana State Med. Assn., Indianapolis.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 19—WVU Cleft Palate Teaching Day, Morgantown.

Oct. 21-27—Am. College of Gastroenterol., Anaheim, Calif.

Oct. 22-26—ACS (Clinical Congress), Chicago.

Nov. 1-3—Pa. Med. Society, Camp Hill.

Nov. 1-4—Med. Society of Va., Hot Springs.

Nov. 4-7—Southern Med. Assn., Las Vegas.

Nov. 4-8—Am. College of Chest Physicians, Houston.

Nov. 5-8—Am. Assn. for the Study of Liver Disease, Chicago.

Nov. 5-9—Am. Academy of Ophthalmol., San Francisco.

Nov. 16-17—Med. Society of Delaware, Wilmington.

Nov. 29-30—Am. College of Chemosurgery, Chicago.

**1980**

**Jan. 25-27—13th Mid-Winter Clinical Conference, Charleston.**

April 18-20—Scientific Assembly, W. Va. Chapter, AAFP, Morgantown.

April 20-23—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

# CONVENTION PROGRAM

## 112th ANNUAL MEETING

**of the**

## *West Virginia State Medical Association*

**THE GREENBRIER, WHITE SULPHUR SPRINGS**

**August 22-25, 1979**

### WEDNESDAY MORNING

**August 22**

**(Eastern Daylight Time)**

9:00-5:00—Registration, Registration Lobby.

9:30—Pre-Convention Meeting of the Council. Joseph A. Smith, M.D., *Presiding* (Lee Room, with Luncheon in Fillmore-Van Buren Rooms).

### WEDNESDAY AFTERNOON

3:00—First Session of the House of Delegates. Robert D. Hess, M.D., *Presiding* (Chesapeake Hall).

Invocation—William E. Gilmore, M.D.

Address: Hoyt D. Gardner, M.D., President, American Medical Association.

Presentation of AMA-ERF Grants to the West Virginia University and Marshall University Schools of Medicine.

Business Meeting.

### WEDNESDAY EVENING

6:30-7:30—President's Reception for Honor Guests (Old White Patio).

### THURSDAY MORNING

**August 23**

8:30-5:00—Registration, Registration Lobby.

**Opening Exercise**

**(Theater)**

9:00—Call to Order—Robert D. Hess, M.D., President, West Virginia State Medical Association.

Invocation—Joe N. Jarrett, M.D.

Address of Welcome—Robert D. Hess, M.D.

Introduction of Arthur A. Abplanalp, M.D., 1979 Program Committee Chairman, and other Members of his Committee.

"The Thomas L. Harris Address"

Michael J. Halberstam, M.D., Washington, D. C., Editor-in-Chief, Modern Medicine. Subject: "The Future, and Proper, Role of Liberalism in Medicine."

**First General Session**

**9:45-12:30**

**"Symposium on Drug Reactions and Interactions"**

*Moderator*: Donald S. Robinson, M.D.

9:45—Leighton E. Cluff, M.D., Vice President, The Robert Wood Johnson Foundation, Princeton, New Jersey, Subject: "Perspectives of Clinical Problems with Drugs."

10:30—W. Leigh Thompson, M.D., Professor of Medicine, Case Western Reserve University, and Co-Director of Clinical Pharmacology, and Critical Care Medicine, University Hospitals of Cleveland. Subject: "Drug Levels: Fact and Fancy."

11:15—Coffee Break to Visit Exhibits.

11:30—Frank J. Ayd, Jr., M.D., Director of Professional Education and Research, Taylor Manor Hospital, Baltimore; and Professor of Psychiatry, West Virginia University Medical Center, Charleston. Subject: "Psychotropic Drug Interactions."

12:30—Recess for Lunch.

### THURSDAY AFTERNOON

12:30—Luncheon Honoring Past Presidents of the West Virginia State Medical Association. Joseph A. Smith, M.D., *Presiding* (Tyler Room).

2:00—Resolutions Committee — Richard E. Flood, M.D., *Presiding* (Directors' Room).

## THURSDAY EVENING

6:30—Cocktail Party. West Virginia University Alumni Association. David Z. Morgan, M.D., *In Charge* (West Virginia Room).

## FRIDAY MORNING

### August 24

8:30-5:00—Registration, Registration Lobby.

### Breakfast Meetings

7:30—West Virginia Academy of Ophthalmology and Otolaryngology. Moseley H. Winkler, M.D., *Presiding* (Washington Room).

7:30—Section on Internal Medicine. Robert H. Waldman, M.D., *Presiding* (Lee Room).

Guest Speakers: Leighton E. Cluff, M.D., and W. Leigh Thompson, M.D. Subject: "Are Special Care Units for Medical Patients Beneficial or Detrimental?"

7:30—Section on Dermatology. John J. Mahood, M.D., *Presiding* (Jackson Room).

*Moderator*: William A. Welton, M.D., Professor and Chairman of Dermatology, West Virginia University Medical Center, Morgantown, assisted by Staff Residents.

Presentation of Case Histories by Individual Members, Including Biopsies and Clinical Photographs.

7:30—Section on Surgery. Robert J. Reed III, M.D., *Presiding* (Buchanan Room).

Guest Speaker: Harry H. LeVeen, M.D. Subject: "Radiofrequency Thermotherapy for Cancer."

8:00—Section on Urology. Stanley J. Kandzari, M.D., *Presiding* (Directors' Room).

Guest Speaker: George A. Richard, M.D., Professor of Pediatric Neurology, University of Florida, Gainesville. Subject: "Vesicoureteral Reflux."

### Second General Session (Theater)

*Moderator*: Robert H. Waldman, M.D.

9:30—Eric L. Radin, M.D., Professor and Chairman of Orthopedic Surgery, West Virginia University Medical Center, Morgantown. Subject: "Update on Total Joint Replacement."

10:15—Robert Bettinger, M.D., Assistant Professor of Anesthesiology, WVU Medical Center. Subject: "The Pain Clinic: Unique Approach to an Old Problem."

11:00—Coffee Break to Visit Exhibits.

11:15—Michael E. Crouch, M.D., Assistant Professor of Medicine, WVU Medical Center. Subject: "The Use of the Newer Non-Steroidal Anti-Inflammatory Drugs in Treatment of Musculoskeletal Disease."

12:00—Recess for Lunch.

## FRIDAY AFTERNOON

12:00—Publication Committee. Stephen D. Ward, M.D., *Presiding* (Buchanan Room).

12:15—Cancer Committee. David B. Gray, M.D., *Presiding* (Washington Room).

12:30—West Virginia Medical Institute, Inc., Board of Trustees. Harry S. Weeks, Jr., M.D., *Presiding* (Directors' Room).

1:00—West Virginia Chapter, American College of Emergency Physicians. Jack R. Page, M.D., *Presiding* (Pierce Room).

Guest Speakers: Frank J. Ayd, Jr., M.D. Subject: "Drug Interactions in the Emergency Department."

William E. Anderson, M.D. Subject: "Emergency Department Evaluation of the Alcoholic."

2:00—Section on Orthopedic Surgery. Charles M. Davis, Jr., M.D., *Presiding* (Tyler Room).

Guest Speaker: Eric L. Radin, M.D. Subject: "Treatment of Osteonecrosis of the Femoral Head in the Young Adult."

2:00—West Virginia District Branch, American Psychiatric Association. Charles C. Weise, M.D., *Presiding* (Lee Room).

Guest Speaker: Frank J. Ayd, Jr., M.D. Subject: "Risk-Benefit Ratios of Lithium Compared with Tricyclic Antidepressants and Neuroleptics."

2:00—West Virginia Chapter, American Academy of Pediatrics. Herbert H. Pomerance, M.D., *Presiding* (Fillmore Room).

Guest Speaker: Saul Krugman, M.D. Subject: "Immunization Procedures: 1979 Update."

4:00—West Virginia Chapter, American Society of Internal Medicine. Alfred K. Pfister, M.D., *Presiding* (Jackson Room).

5:00—Committee on Nominations. Jack Leckie, M.D., *Presiding* (Directors' Room).

## FRIDAY EVENING

6:00—Cocktail Party. The University of Virginia Medical School Foundation. William C Morgan, Jr., M.D., *In Charge* (location to be announced).

6:00—Cocktail Party. West Virginia Chapter, Medical College of Virginia Alumni Association. Larry C. Smith, M.D., *In Charge* (Old White Patio).

10:00—Auxiliary "Monte Carlo Night," Cabell County Auxiliary, *Hostess*; Mrs. Charles E. Turner, *Chairman* (Chesapeake Hall).

## SATURDAY MORNING

### August 25

8:00—West Virginia Radiological Society. Orlando F. Gabriele, M.D., *Presiding* (Tyler Room).

Guest Speaker: Dennis D. Watson, Ph.D., Associate Professor of Medicine and Associate Director, Cardiology Non-Invasive Laboratory, University of Virginia School of Medicine, Charlottesville. Subject: "Nuclear Cardiac Imaging and Clinical Function."

9:00-2:00—Registration, Registration Lobby.

### Third General Session (Theater)

**9:30-12:00**

*Moderator*: George J. Hill II, M.D.

**"Symposium on Liver Disease"**

9:30—Harry H. LeVeen, M.D., Chief, Surgical Service, Veterans Administration Hospital, Brooklyn, New York; and Professor of Surgery, State University of New York. Subject: "Surgical Treatment of Ascites."

10:15—Saul Krugman, M.D., Professor of Pediatrics, New York University Medical Center, New York, New York. Subject: "Viral Hepatitis: New Developments."

11:00—Coffee Break to Visit Exhibits.

11:15—William E. Anderson, M.D., Professor, Department of Medicine, and Chairman, Division of Gastroenterology, West Virginia University Medical Center, Morgantown. Subject: "Alcoholic Liver Disease."

12:00—Recess for Lunch.

## SATURDAY AFTERNOON

12:00—West Virginia State Society of Anesthesiologists. John F. I. Zeedick, M.D., *Presiding* (Directors' Room).

Guest Speaker: Robert Bettinger, M.D. Subject: "Management of Pain Problems."

2:30—Second and Final Session of the House of Delegates. Robert D. Hess, M.D., *Presiding* (Chesapeake Hall).

Invocation—Joseph T. Skaggs, M.D.

Presidential Address: Robert D. Hess, M.D., President, West Virginia State Medical Association.

Presentation of New Officers of Auxiliary to the West Virginia State Medical Association.

Presentation of Honor Guests.

Business Meeting.

Election of Officers.

Installation of Stephen D. Ward, M.D., Wheeling, as President of the West Virginia State Medical Association.

## SATURDAY EVENING

6:30-7:30—Cocktail Party and Reception Honoring Officers of the West Virginia State Medical Association (Colonial Hall Terrace).

# A WORD OF THANKS

**The 1979 Program Committee, and the officers and members of the West Virginia State Medical Association, wish to acknowledge with sincere thanks grants received from the following Firms to help support the Scientific Program for this year's 112th Annual Meeting.**

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(The firms listed above are those which had allocated funds to the Scientific Program as this issue of *The Journal* went to press. Additional contributors will be listed in the Official Program to be distributed at the Greenbrier.)

# 1979 PROGRAM COMMITTEE

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South Charleston

George J. Hill II, M. D.
Huntington

Stephen D. Ward, M. D.
Wheeling

Cordell de la Pena, M. D.
Clarksburg

Robert H. Waldman, M. D.
Morgantown

# DELEGATES AND ALTERNATES

**BOONE** (2)—Delegates, A. E. Glover and Harold H. Howell, Madison.

**BROOKE** (2)—Delegates, W. T. Booher, Wellsburg; and Leticia Peralta-Velarde, Follansbee. Alternates, W. T. Booher, Jr., Wellsburg; and Rogelio L. Velarde, Follansbee.

**CABELL** (13)—Delegates, E. B. Santos, Robert W. Lowe, Donald S. Robinson, Lee P. Van Voris, Gary L. Ripley, Winfield C. John, Maurice A. Mufson, Albert C. Esposito, Harry Karl Tweel, Jack Leckie, George J. Hill II, Sirous Arya and Charles E. Turner, Huntington. Alternates, John D. Harrah, Robert C. Nerhood, Joseph E. Ricketts and M. Bruce Martin, Huntington; and W. W. Mills, Kenova.

**CENTRAL WEST VIRGINIA** (4) — Delegates, John A. Mathias and Frank I. Hartman II, Buckhannon; R. Paul Bennett, Upperglade; and Joseph B. Reed, Buckhannon. Alternates, R. L. Chamberlain, Buckhannon; Clemente Diaz, Richwood; and C. R. Davisson, Weston.

**EASTERN PANHANDLE** (4)—Delegates, Jean P. Lucas, Leo H. T. Bernstein, L. Walter Fix and William Richard McCune, Martinsburg.

**FAYETTE** (3)—Delegates, Ivan H. Bush, Jr., and Teodorico Asinas, Oak Hill. Alternates, M. U. Maminta, Oak Hill; and Afif S. Habash, Montgomery.

**GREENBRIER VALLEY** (4)—Delegates, Thomas O. Dotson and Harvey A. Martin, White Sulphur Springs; Houston B. Moore, Lewisburg; and Edward A. Ricketts, Jr., White Sulphur Springs.

**HANCOCK** (4)—Delegates, Richard E. Flood and J. L. Thompson, Weirton. Alternates, David H. Williams, Ray S. Greco and Thomas J. Beynon, Weirton.

**HARRISON** (6)—Delegates, Lynwood D. Zinn and L. Dale Simmons, Clarksburg; David R. Hess, Bridgeport; M. V. Kalaycioglu, Shinnston; Victorino D. Chin, Bridgeport; and Catalino B. Mendoza, Jr., Clarksburg. Alternates, Julian D. Gasataya, Lumberport; Louis C. Palmer, Bridgeport; and Hugh Brown, Cordell de la Pena, James Gainer and Erlina de la Pena, Clarksburg.

**JEFFERSON** (2)—Delegates, L. Mildred Williams, Charles Town; and Rene P. Buenvenida, Washington, D. C. Alternate, S. K. G. Menon, Ranson.

**KANAWHA** (21)—Delegates, Jean P. Cavender, Charleston; William D. Crigger, South Charleston; W. Alva Deardorff, Carl B. Hall, Echols A. Hansbarger, Jr., and Sherman E. Hatfield, Charleston; George W. Hogshead, Nitro; Ralph J. Holloway, South Charleston; J. Dennis Kugel, James W. Lane, Tony C. Majestro, Jimmy Lee Mangus, Theodore P. Mantz and John B. Markey, Charleston; John V. Merrifield, Dunbar; Richard C. Rashid and Carl J. Roncaglione, South Charleston; and George A. Shawkey, Joseph T. Skaggs, Pat A. Tuckwiller and John F. I. Zeedick, Charleston. Alternates, Prakash C. Bangani, Charleston; R. S. Birckhead, Gauley Bridge; Donald E. Farmer, Robert Ghiz and John A. B. Holt, Charleston; James T. Hughes, Ripley; Ralph H. Nestmann, Roger P. Nichols, William C. Revercomb, Jr., and James T. Smith, Charleston; John W. Vaughan, St. Albans; and Charles C. Weise, Charleston.

**LOGAN** (3)—Delegates, Abelard A. Pelaez and I. M. Kruger, Logan; and Thomas P. Long, Man. Alternates, Leandro P. Galang, Carlos F. DeLara and Chanchai Tivitmahaisoon, Logan.

**MARION** (5)—Delegates, C. M. Lee and William L. Mossburg, Fairmont. Alternates, Joseph T. Mallamo and Stanard L. Swihart, Fairmont.

**MARSHALL** (3)—Delegates, Erol Bastug and Jesus T. Ho, Glen Dale; and Mohammad F. Anwar, Wheeling. Alternates, Carlos C. Jimenez, Glen Dale; and Oscar S. Irisari, Moundsville.

**MASON** (3)—Delegates, Aarom Boonsue and Richard L. Slack, Point Pleasant. Alternate, Ismael O. Jamora, Point Pleasant.

**McDOWELL** (3)—Delegates, Stephen Mamick, Arthur A. Carr and M. Kuppusami, Welch. Alternates, Ray E. Burger, Richard O. Gale and Bernard M. Swope, Welch.

**MERCER** (7)—Delegates, L. J. Pace and Frank J. Holroyd, Princeton; Sam Milchin, Bluefield, Virginia; and Edward M. Spencer, Bluefield. Alternates, J. E. Blaydes, Jr., John J. Mahood and Robert W. Neilson, Bluefield.

**MINGO** (2)—Delegates, Arthur E. Levy and Russell A. Salton, Williamson.

**MONONGALIA** (14)—Delegates, Robert Bettinger, Donald C. Carter, Thomas S. Clark, George A. Curry, John L. Fullmer, Bette G. Hinton, Barbara Jones, Roger E. King, David Z. Morgan, Ralph W. Ryan and Isaiah A. Wiles, Morgantown.

**OHIO** (10)—Delegates, R. U. Drinkard, John P. Franz, R. Alan Fawcett, David A. Kappel, Robert J. Reed III, Jess S. Renedo, Robert R. Weiler, Harry S. Weeks, Jr., Robert S. Robbins and Milton E. Nugent, Wheeling. Alternates, William F. Park, Charles V. Porter, William P. Sinclair, Alan Marshall Ruben, M. D. Reiter, John J. Battaglino,

Alfred D. Ghaphery, Paul R. Hedges, James C. Durig and John W. Kennard, Wheeling.

**PARKERSBURG ACADEMY** (8) — Delegates, Harry Shannon and William E. Gilmore, Parkersburg; Jack J. Stark, Belpre, Ohio; Michael J. Lewis, St. Marys; and Alfonso Morales, Q. S. Santiago, Paul G. Modie, Jr., and A. Paul Brooks, Parkersburg.

**POTOMAC VALLEY** (3) — Delegates, Zinnia Bacol-Giron, Nabal B. Giron and Sadtha Surattamont, Romney. Alternates, Dewey F. Bensenhaver, Petersburg; and Harry F. Coffman and Carl A. Liebig, Keyser.

**PRESTON** (2)—Delegates, Del Roy R. Davis, Kingwood; and Thomas A. Haymond, Masontown. Alternates, John W. Trenton, Kingwood; and William H. Harriman, Jr., Terra Alta.

**RALEIGH** (7) — Delegates, James A. Barnes, Worthy W. McKinney, Grover C. Hedrick, Jr., R. C. Jereza, William D. McLean, Richard D. Richmond and C. Richard Daniel, Beckley. Alternates, Walter E. Klingensmith, M. Jamil Ahmed, Joseph A. Maiolo, Prospero B. Gogo, Anne C. D. Hooper, William Dale Hooper and Nicholas D. Zambos, Beckley.

**SUMMERS** (2)—Delegates, Buford W. McNeer and Jack D. Woodrum, Hinton. Alternates, Chandra P. Sharma and E. L. Jimenez, Hinton.

**TYGART'S VALLEY** (5)—Delegates, A. Kyle Bush, Philippi; Gene W. Harlow. Grafton; and James B. Magee, Robert R. Rector and Michael M. Stump V, Elkins. Alternates, J. Marlin Nissley, Philippi; and N. Santra, Elkins.

**WETZEL** (2)—Delegates, Lemoyne Coffield and Charles P. Watson, New Martinsville. Alternates, Terrell Coffield, New Martinsville; and Allen M. Dyer, Jr., Pine Grove.

**WYOMING** (2)—Delegates, George F. Fordham and Ross E. Newman, Mullens. Alternate, Frank J. Zsoldos, Mullens.

## *Reception Committee*

KENNETH G. MACDONALD, *Chairman*

Frank J. Holroyd
Richard E. Flood
C. A. Hoffman
Robert D. Hess
Stephen D. Ward
Vernon E. Duckwall

L. Walter Fix
Robert H. Waldman
D. Sheffer Clark
William L. Cooke
R. Paul Bennett
Charles E. Turner

Leo H. T. Bernstein
Joseph T. Skaggs
Carl R. Adkins
Charles C. Weise
Donald C. Carter
Florence K. Hoback

Arthur A. Abplanalp
Charles M. Davis, Jr.
Robert Wylie Lowe
Winfield C. John
Harry F. Coffman
Buford W. McNeer

Ralph W. Ryan
Warren Point
Charles H. McKown, Jr.
Lynwood D. Zinn
Robert J. Reed III
Harry Shannon

T. P. Mantz
Herbert H. Pomerance
Gilbert A. Ratcliff, Jr.
Barbara Jones
W. Gene Klingberg
Jack R. Page

Joseph E. Ricketts
Arthur E. Levy
Dewey F. Bensenhaver
Worthy W. McKinney
Robert L. Ghiz
John P. Griffith, Jr.

A. C. Esposito
William L. Mossburg
David F. Bell, Jr.
Jack Leckie
John B. Markey
Lee B. Todd

Harry S. Weeks, Jr.
Seigle W. Parks
Isaiah A. Wiles
Joseph A. Smith
M. V. Kalaycioglu
Owen C. Meadows, Jr.

William E. Gilmore
Joseph T. Mallamo
Carl J. Roncaglione
John J. Mahood
L. J. Pace
Sam Milchin
David H. Williams

## Official Program
## AUXILIARY
### to the
### West Virginia State Medical Association
### 55th Annual Meeting
### THE GREENBRIER
### White Sulphur Springs
### August 22-25, 1979

### WEDNESDAY AFTERNOON
**August 22**

3:00—First Session of the House of Delegates, West Virginia State Medical Association (Chesapeake Hall).

Address by Hoyt D. Gardner, M. D., President, American Medical Association.

4:00—Pre-Convention Board Meeting, Mrs. D. Sheffer Clark, President, presiding (Fillmore-Van Buren Rooms).

### WEDNESDAY EVENING

6:30-7:30—President's Reception for Honor Guests (Old White Patio).

### THURSDAY MORNING
**August 23**

9:00—Formal Opening of the 112th Annual Meeting of the West Virginia State Medical Association (Theater).

"The Thomas L. Harris Address"

Michael J. Halberstam, M. D., Washington, D. C., Editor-in-Chief, Modern Medicine.

(Auxiliary Members are Invited to Attend).

9:45—Formal Opening of the Convention, Mrs. D. Sheffer Clark, President, presiding (Fillmore-Van Buren Rooms).

Invocation, Pledge of Loyalty, and Pledge to Flag—Mrs. Logan W. Hovis.

Introduction of Honor Guests.

Presentation of Robert D. Hess, M. D., President, West Virginia State Medical Association.

Introduction of Convention Chairman—Mrs. M. Bruce Martin.

Roll Call of Delegates—Mrs. Gary G. Gilbert, Recording Secretary.

Convention Rules of Order—Mrs. Harry S. Weeks, Jr., Parliamentarian.

Treasurer's Report—Mrs. J. Dennis Kugel.

In Memoriam—Mrs. J. L. Berkley.

Credentials and Registration—Mrs. Lynnwood D. Zinn.

Keynote Address—Mrs. Ben Johnson, Jr., President, American Medical Association Auxiliary.

Recommendations from Preconvention Board Meeting—Mrs. D. Sheffer Clark.

Report of the Revisions Committee—Mrs. M. Bruce Martin.

New Business and Announcements.

Report of the 1979 Nominating Committee, First Reading—Mrs. Joseph T. Mallamo.

Election of 1980 Nominating Committee.

Reports of Officers and Standing Committee Chairmen (These will not be read, but are published in the Annual Reports Book).

Presentation of Regional Directors:
Eastern Region—Mrs. E. G. Friera.
Northern Region—Mrs. George Naymick.
Western Region—Mrs. Charles E. Turner.
Southern Region—Mrs. E. M. Spencer.
Central Region—Mrs. Logan W. Hovis.

Recess.

### THURSDAY AFTERNOON

2:00—Bridge Trellis Lobby). Hostess, Central West Virginia, Mrs. Claude R. Davisson, Chairman.

Golf. Hostess, Monongalia County, Mrs. George A. Curry, Chairman. (Golf may be played either Thursday or Friday afternoon.)

### FRIDAY MORNING
**August 24**

8:00—Past Presidents' Breakfast, Mrs. Joseph T. Mallamo, Immediate Past President, presiding (Virginia Room).

9:45—Second General Session—Mrs. D. Sheffer Clark, President, presiding (Fillmore-Van Buren Rooms).

Introduction of Honor Guests.

Roll Call of Delegates—Mrs. Gary G. Gilbert.

Address—Mrs. Baxter S. Troutman, President, Woman's Auxiliary to the Southern Medical Association.

Report of 1978 Reading Committee.

Convention Announcements—Mrs. M. Bruce Martin.

Report of Convention Committees:
Finance—Mrs. J. L. Mangus.
Credentials and Registration—Mrs. Lynnwood D. Zinn.

Press and Publicity — Mrs. Miroslav Kovacevich.

Presentation of AMA-ERF Awards—Mrs. Charles E. Andrews, State Chairman, and Mrs. J. L. Mangus, National Eastern Region Chairman, to: John E. Jones, M. D., Dean, West Virginia University School of Medicine; and Robert W. Coon, M. D., Dean, Marshall University School of Medicine.

Unfinished Business.

Report of the 1979 Nominating Committee, Second Reading—Mrs. Joseph T. Mallamo.

Election of Officers.

Installation of Officers—Mrs. Ben Johnson, Jr., President, American Medical Association Auxiliary.

Presentation of President's Pin and Gavel.

Inaugural Address—Mrs. D. Sheffer Clark.

Announcements.

Adjournment.

## FRIDAY AFTERNOON

2:00—Tennis Tournament. Hostess, Raleigh County, Mrs. Prospero B. Gogo, Chairman.

Golf. Hostess, Monongalia County, Mrs. George A. Curry, Chairman.

(Golf may be played either Thursday or Friday afternoon.)

## FRIDAY EVENING

10:00—Monte Carlo Night. Hostess, Cabell County, Mrs. Charles E. Turner, Chairman (Chesapeake Hall). (Tickets may be purchased at the registration desk.)

## SATURDAY MORNING

### August 25

10:00—Postconvention Board Meeting — Mrs. D. Sheffer Clark, President, presiding (Fillmore-Van Buren Rooms).

## SATURDAY AFTERNOON

2:30—Second and Final Session of the House of Delegates, West Virginia State Medical Association (Chesapeake Hall).

Presidential Address—Robert D. Hess, M. D.

Installation of Stephen D. Ward, M. D., as 1979-80 President of the West Virginia State Medical Association.

(Auxiliary Members are Invited to Attend.)

## SATURDAY EVENING

6:30-7:30—Cocktail Party and Reception Honoring the Officers of the West Virginia State Medical Association and its Auxiliary (Colonial Hall Terrace).

# SCIENTIFIC EXHIBITS

### AMERICAN LUNG ASSOCIATION OF WEST VIRGINIA

"LEARNING RESOURCE CENTER." A self-instructional study center on respiratory diseases including interpretation of blood gases, the measurement of closing volume, coal workers' pneumoconiosis, pathology of pulmonary edema, pathology of chronic air flow obstruction, pediatric segmental bronchial drainage, the immunologic system and inflammation, basic pulmonary function, and the pathophysiology of pediatric asthma.

John Heavener, Executive Director.

### THE MYERS CLINIC—BROADDUS HOSPITAL

"OCCULT NEOPLASMS"—This exhibit presents an overview of occult neoplasms. Cancer is the second leading cause of death in the United States. The exhibit also addresses early diagnosis and an aggressive therapy program.

A. Kyle Bush, M. D., Chief of Surgery, and J. Richard Crawford, Director of Photography.

### NATIONWIDE INSURANCE—MEDICARE

"MEDICARE INFORMATION." Nationwide invites you to stop by and discuss your Medicare problems with our district Medicare managers. Educational material is available to assist your office in Medicare claims-filing.

Don F. Harper, District Medicare Manager; Rod D. Parker, District Medicare Manager; J. A. Cuppy, Field Service Manager, and P. E. Jolley, Field Operations Manager.

### UNITED STATES AIR FORCE HEALTH PROFESSIONS RECRUITING

"USAF MEDICAL PROGRAMS." Opportunities for physicians to practice their profession with the USAF Medical Service Corps. If you're a physician who at one time or another has considered a change, then take a look at the Air Force facilities and programs. We in the USAF believe ours is one of the finest health care programs in the nation, and that it offers many unusual professional, as well as personal, opportunities.

TSgt. Dan Webster, Health Professions Recruiter, and Captain Jerry A. Buckbee, Chief, Health Professions Recruiting.

### UNITED STATES ARMY MEDICAL DEPARTMENT

"U. S. ARMY MEDICAL DEPARTMENT." The exhibit will highlight opportunities in the Army Medical Department in the areas of scholarships, internships, residencies, fellowships and hospital staff appointments.

Major (Dr.) Robert Sellards, AMEDD Officer.

### WEST VIRGINIA CHAPTER, AMERICAN ACADEMY OF PEDIATRICS

"SPEAK UP FOR CHILDREN." This is a display to emphasize four areas of particular importance to child health as stressed in the "Speak Up For Children" Program of the American Academy of Pediatrics. This is accomplished via posters and individual contact.

Herbert H. Pomerance, M. D., Chapter Chairman, and Gilbert A. Ratcliff, Jr., M. D., Alternate Chapter Chairman.

### WEST VIRGINIA MEDICAL INSTITUTE, INC.

"RAPID-SCAN DEMONSTRATION—DATA RETRIEVAL." West Virginia Medical Institute, Inc., will demonstrate the computerized medical information system which it operates. The demonstration will show how the system works and its potential for monitoring the quality and appropriateness of care. A working computer terminal will be available for on-line data inquiries. Members of the Institute may request a visual display of selected statistics. Your comments and suggestions concerning Institute activities will be welcomed.

Harry S. Weeks, Jr., M. D., President, and Betty C. Kirkwood, Executive Director.

### WEST VIRGINIA SECTION, AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS

"ACOG EXHIBIT." The exhibit will offer technical bulletins and other practice informational services provided by the American College of Obstretricians and Gynecologists.

(American College Fellow from within the state will staff the exhibit each day.)

### JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE

"THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE CONTINUING MEDICAL EDUCATION AUDIOVISUAL PROGRAMS." Introducing audiovisual programs in internal medicine, echocardiography and selected topics in clinical medicine accredited for Category 1 CME credits.

W. John Winter, Marketing Manager, and Jamie L. Winter.

# ANNUAL REPORTS

## Insurance Committee

Reflecting over three decades of experience, our West Virginia State Medical Association Group Insurance Program has retained its standing among the best in the nation. It is unique in that all administration and claims processing is accomplished locally, promoting personalized service and speedy response. To be able to say that our Group Insurance Program is healthy and sound is a luxury . . . not available to all associations.

Much of the success of our Group Program is a result of knowledgeable and conscientious administration. We have available today eight Plans, designed specifically to protect us both professionally and in our personal lives. Each Plan is periodically evaluated to ensure continuing responsive coverage, with maximum options and rates which compare favorably with any available in the individual marketplace. Despite growth, our administrator continues to emphasize personal handling, including processing of applications, billing and collections, and the processing and payment of claims. There is a service representative, dedicated to the WVSMA Group Insurance Program, traveling throughout the state. He is knowledgeable in all areas of coverage and will help in coordinating benefits to fit the members' needs.

Our Group Program is a source of continuing service to our entire membership. To sustain its high level of proficiency, and to ensure the timeliness of all products, it is most important that we support its existence with our individual participation.

As is our policy, your Insurance Committee is including an up-to-date review of the Plans which compose the West Virginia State Medical Association Group Insurance Program. We encourage you to read these synopses carefully with a critical eye to your own existing coverages.

1. Long-Term Disability Income Protection pays up to $500 a week. There are three benefit plans available and you can individualize these plans with a variety of self-insured waiting periods.
2. Office Overhead Expense provides benefits in the event you are disabled, including rent, utilities, depreciation, employees' salaries and other normal operating costs. This Plan has recently been increased to offer up to $5,000 a month toward defraying these expenses.
3. Family Major Hospital Insurance protects you from the disastrous financial pressure of a serious accident or major illness in the family. The Family Major Hospital Plan can help cover these major hospital expenses up to $30,000, including room and board allowance of $60 a day.
4. Hospital Money Plan offers a schedule of benefits, up to $100 a day for each day of hospital confinement, for a member and spouse. Dependent children may be insured up to $50 a day. This Plan was employed in order to provide some relief from the "over and above" expenses that accompany any type of hospital confinement.
5. Term Life Insurance recently has been rewritten to offer a higher maximum of $100,000 of coverage in units of $10,000 for members. Optional coverage for spouse and children in lesser amounts is also available.
6. Accidental Death and Dismemberment coverage is available for up to $100,000 and provides 24-hour protection, 365 days a year. This type of catastrophic protection follows you on and off the job, anywhere in the world, including full protection as a passenger on regular commercial airlines.
7. Coordinated Investment Service, specifically designed for HR-10, offers mutual funds, fixed or variable annuities, and split funds.
8. Group Professional Liability Insurance offers up to $1,000,000 Professional Malpractice protection, including umbrella excess liability limits over auto, office and personal coverages.

### Professional Liability Program

The Professional Liability Program sponsored by the Association and written by Aetna Life and Casualty Company is now in its seventh year. Premiums for 1979 increased an average of 6.3% from the previous year. This is the second year that the premium structure has been fairly stable —certainly, no big increases as experienced in the recent past. A total dividend of $1,577,759.00 was shared by the participating physi-

cians. Other beneficial program changes included improved flexibility in the insurance package, removal of the partnership surcharge and the employed physician surcharge, rating class reductions for shock therapy and needle biopsy procedures and a new billing system.

Last year at this time there were 124 pending malpractice cases in the state. The company had reserves on the cases of $2,002,540.00. This averaged $16,149.00 per case. At the end of the first three months of 1979, there were 206 pending cases. Reserves for them totalled $4.1 million—an average of $19,902 per claim. New cases have been received at an increasing rate during this same period of time.

The Loss Control and Education Program is the most effective way to combat the root causes of medical malpractice. The program calls for the systematic study of actual cases to determine cause, trends, and new areas that need attention. This information is available to West Virginia physicians so that positive action can be utilized in each physician's practice. We believe that many future situations can be avoided that have proved to be troublesome in the past. The Aetna Account Supervisor is available to all the component societies and specialty groups for Loss Control and Education activities.

The District Claim Review Panels are a very important part of the program too. The panels continue to review cases and lend medical advice and expertise to the defense of malpractice cases. This assistance is extremely valuable to the company's Claim Department. The West Virginia physicians on the panel are also gaining real insights into the causes of the cases reviewed. The importance of records and rapport come up again and again in the reviews.

Historically, professional liability insurance has proved to be cyclical in its good and bad times. In the last few years, a moderation in the frequency and severity of claims has been experienced nationally. This may be due partly to the much publicized malpractice crisis of 1974-1975. Some experts have predicted that another troublesome period is on the horizon and have said early 1980 would announce its arrival. This prediction becomes darker when reports are received indicating that recent tort reforms that were sought to help the situation have been circumvented in some areas.

We always need to be interested in ways to protect against allegations of malpractice. We can do this best through the use of the tools of the Loss Control and Education Program. If we meet success in this area, we can expect the program to remain healthy.

Respectfully submitted,

Lyle D. Vincent, M. D.,
*Chairman*
James L. Bryant
John T. Chambers
David V. Cole
R. U. Drinkard
L. Walter Fix
F. Perry Greene, Jr.
H. Summers Harrison
James A. Heckman
C. A. Hoffman
Edward Jackson
Kenneth G. MacDonald, Sr.
A. Thomas McCoy
Buford W. McNeer
C. Vincent Townsend
John F. I. Zeedick

June 25, 1979

The West Virginia Medical Journal

Vol. 75, No. 9 September, 1979

# The Management Of Tumors In Children

ELLEN E. HRABOVSKY, M. D.
*Associate Professor of Surgery and Pediatrics, West Virginia University Medical Center, Morgantown.*

*The appearance of a mass in a child requires a well-planned diagnostic and therapeutic approach. Pediatric malignancy behaves quite differently from its adult counterpart because of the embryonic origins of these tumors. New information obtained from large inter-group studies continually influences therapeutic alternatives. Using nephroblastoma and rhabdomyosarcoma as examples, an approach to the management of childhood cancer, emphasizing the surgeon's role within the entire pediatric oncology team, is presented.*

The appearance of a tumor always generates anxiety in both the patient and the examining physician. This concern is greatly magnified when the patient is a child. Fear of malignancy always arises, and justifiably so, because malignancy is a real possibility in the pediatric age group—even in the newborn infant! Therefore, the evaluation of the child with a mass must always be designed to include the possibility of malignancy.

These tumors of embryonic origin are generally very aggressive and, in the past, they carried a very high mortality. For instance, Wilm's tumor[1] had a greater than 70 per cent mortality rate when the tumor was removed without any other adjuvant therapy. Rhabdomyosarcoma[2] was over 80 per cent fatal using only local excision of the tumor; even now, neuroblastoma[3] has an overall mortality rate of 60 to 65 per cent even with combined therapy.

Pediatric malignancies can be controlled and even cured. What is the optimum treatment for these aggressive lesions? These pediatric tumors occur too infrequently for any local group to become expert on the basis of their own experience. Because of the relatively small number of patients with these tumors, a cooperative study approach is necessary.

### National Wilm's Tumor Studies

The classic example of a successful multimodality study is the National Wilm's Tumor Study (NWTS). Wilm's tumor (nephroblastoma) is an embryonal tumor of the kidney, most common in the one to four-year age range, but it can occur both in the newborn and in late childhood. Wilm's tumor presents most commonly as a flank mass, and the IVP changes include distortion and displacement of the calyces. Prior to attempts at surgical removal, nephroblastoma was 100 per cent fatal. In 1935, with surgical excision alone, 33 per cent of the patients were cured. Doctors Ladd and Gross,[2] in Boston, first added radiotherapy immediately postoperatively; consequently, the overall survival rate rose to 50 per cent. The addition of actinomycin-D[4] further improved survival so that by 1968 many small series were reporting a suggestion of improvement in survival. The NWTS was initiated in 1969 to evaluate treatment modalities in a large group of patients because the numbers of patients evaluated in studies done by individual centers were too few to reach accurate conclusions. The first NWTS was closed in 1974 with 714 patients registered.[5] This is approximately 140 new patients nationally per year.

In NWTS-1, the tumor was staged as seen in Table 1. Treatment regimens found effective in small studies were used as the basis for the schema in NWTS-1. All Group I patients were treated with surgery and chemotherapy and they were randomized to receive or not receive radiotherapy. In Group II and III patients, all tumors were removed surgically and the bed treated with radiotherapy. Actinomycin-D and vincristine were randomized as a single-agent therapy and combined therapy.

**TABLE 1**
**Wilm's Tumor Classification**

| | |
|---|---|
| Group I | confined to kidney |
| Group II | confined to kidney and hilar nodes |
| Group III | regional tumor spread; tumor spill; biopsy |
| Group IV | distant metastases |
| Group V | bilateral tumor |

This study found that radiotherapy for Group I is not necessary, thus eliminating the morbidity associated with radiotherapy on the growing skeleton.[6] Combined chemotherapy with vincristine and actinomycin-D was almost twice as effective as single-agent chemotherapy in Groups II and III.

Uniform histologic evaluation showed a distinct grouping based on cell type. The favorable histology group, including well-differentiated and embryonal types of tumors, fared far better than the unfavorable histology group which includes anaplastic and sarcomatous tumors. On the basis of NWTS-1, the second NWTS looked at further refinements in therapy, and NWTS-3 will be initiated soon to examine in more depth the results based on histology.

### Intergroup Rhabdomyosarcoma Studies

A more difficult management problem is presented by rhabdomyosarcoma. This tumor of striated muscle can arise anywhere in the body. It is the most common soft-tissue tumor, representing 10 per cent of all solid masses in children. Prior to multi-modality therapy, less than 20 per cent of children treated by only limited surgical excision survived. By 1970, radical surgical therapy resulted in a 30 to 40 per cent cure rate, but the morbidity was prohibitive.[3]

As in the Wilm's tumor study, several larger centers and the Children's Cancer Study Group looked at the results using multi-modality therapy and found a striking improvement in survival with a multi-modality approach to rhabdomyosarcoma. Thus, in 1972, the first Intergroup Rhabdomyosarcoma Study (IRS) was initiated by the combined efforts of the Southwest Oncology Group, the Children's Cancer Study Group and the Cancer and Acute Leukemia Group B.[7]

In IRS-1, the patients were clinically grouped as shown in Table 2. Group I patients were randomized to evaluate the effectiveness of radiotherapy to the tumor bed, and no significant difference in survival occurred. In Group II, a chemotherapy regimen using vincristine and actinomycin-D was compared with vincristine, actinomycin-D and cyclophosphamide. Again, no significant difference was found, thus eliminating the long-term hazards of cyclophosphamide.[8] The overall two-year, disease-free survival from rhabdomyosarcoma in IRS-1 is 81 per cent for all groups and is broken down by clinical groups as shown in Table 3.[9] The organ or area of origin also significantly affects survival. A pelvic site of tumor has the most favorable prognosis, whereas extremity lesions have a very poor prognosis.

**TABLE 2**
**Rhabdomyosarcoma Classification**

| | |
|---|---|
| Group I | local tumor completely removed |
| Group II | microscopic residual |
| Group III | gross residual disease (includes biopsy) |
| Group IV | distant metastases |

**TABLE 3**
**Rhabdomyosarcoma**
**Disease-Free Survival—IRS-I**

| | |
|---|---|
| Group I | 91% |
| Group II | 73% |
| Group III | 54% |
| Group IV | 13% |

The second IRS[10] was initiated in 1978 to look at refinements in radiotherapy and chemotherapy. A great deal of emphasis is placed on nonmutilating surgical procedures in this study. Orbital enucleation can be avoided with current refinements in radiotherapy. Amputation for extremity lesions is being discouraged because amputation does not improve survival and, in fact, survival is decreased in the amputee. Pelvic lesions are being treated with intensive chemotherapy, and surgical treatment is reserved for residual or recurrent tumor. Intensive pelvic radiation is being avoided entirely. The results from this form of treatment seem to be as good as with pelvic exenteration, and the morbidity is much less.

### Treatment Refinements

Almost all pediatric malignancies are being studied by the cooperative study approach. Refinements in treatment are constantly being sought. Radiation is a carcinogen, and its effects on bone growth in children can be more malignant than the tumor it cured.[6,11] Long-term effects of various chemotherapeutic agents are being recognized in the late-effects evaluations of the various group studies.[8,12] Protocols are being designed to evaluate minimal treatment regimens which still assure cure.

What does all this mean to the local surgeon? It means that the surgeon who would undertake a surgical procedure on a potentially malignant

lesion in a child must assure that a thorough and appropriate preoperative tumor evaluation be carried out. The surgeon who would endeavor to manage a child with a malignancy must be knowledgeable about current staging criteria and therapeutic alternatives in advance of performing an operative procedure. Biopsy alone in most of these tumors automatically renders a lesion a Stage III regardless of the lesion's initial extent. The data provided by the IRS and NWTS show that difference in outcome following the biopsy of a tumor instead of definitive resection is prohibitive.

The young patient with a mass must be given every opportunity for cure. The management of pediatric malignancy requires a team approach and this team includes a surgeon, an oncologist, a pathologist and a radiotherapist. Each of these individuals must be familiar with the diseases and care of children. Every child with a malignancy should be entered into the appropriate group study, for only by using all the resources available can we find answers in the fight to cure childhood malignancy.

Although cure is a worthy goal, a lifetime of severe disability as a result of treatment is also to be avoided. Carefully planned surgical procedures which preserve function first and foremost are essential. In this International Year of the Child, let us remember that malignancy is a childhood problem whose cure is possible through a carefully planned team approach.

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# The Yield And Reliability Of Oculoplethysmography And Carotid Phonoangiography In Stroke Screening And The Diagnosis Of Extracranial Carotid Occlusive Disease

## Our Experience In 1,650 Patients

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*The oculoplethysmography (OPG) in conjunction with the carotid phonoangiography (CPA) have been safe, reliable, inexpensive and reproducible, non-invasive tests for detection of significant carotid occlusive disease without complications and with no absolute contraindications. The purpose of this paper was to find the yield and reliability of the OPG-CPA as screening and diagnostic tests by analysis of the results of 1,650 such tests done on 1,650 patients, 10 per cent of whom had arteriography.*

*The overall accuracy has been around 90 per cent in comparison to the carotid arteriogram, with one per cent false positives, five per cent false negatives, and about four per cent erroneous assessments of the severity of the disease. The risk and expense of unnecessary arteriographic studies can be reduced, and the accuracy of arteriographic techniques and interpretations can be enhanced by routine application of OPG. The OPG-CPA testing is recommended as a stroke screening procedure for high-risk patients.*

STROKE ranks third as a cause of death in the United States: approximately two million or more persons are affected by stroke each year. Various methods have been used for the screening and diagnosis of cerebrovascular insufficiency, including ophthalmodynamometry, cerebral blood flow, brain scan, thermography, ultrasonic arteriography, Doppler ultrasonic evaluation, contrast arteriography and oculoplethysmography. The purpose of this paper was to find the yield and reliability of the oculoplethysmography-carotid phonoangiography (OPG-CPA) as a screening and diagnostic test by analysis of the results of 1,650 OPG-CPA tests done on 1,650 patients at the Arizona Heart Institute for the period of September, 1976, to June, 1978.

Currently, this non-invasive testing adds a new dimension to the diagnosis of cerebrovascular insufficiency.

The tests in use at our institute are the OPG and the CPA. When used in conjunction with each other, these examinations are about 90 per cent accurate in detecting extracranial carotid occlusive disease.

*Carotid Phonoangiography (CPA)*: A specially-designed, hand-held microphone is applied over the neck at high, middle and low levels for detection of bruits. An electronic stethoscope headset connected to the microphone is used to hear the bruits which are recorded on one Polaroid film, thus giving a permanent picture for analyzing the degree of the stenosis and further evaluation. Recorded tracings enable differentiation between bifurcation and sub-bifurcation origin of bruits and radiation from below, *e.g.*, aortic stenosis.

*Oculoplethysmography (OPG)*: The principle of this test is based on comparison of the arrival of the arterial pulse at each eye. When no disease is present, both pulses arrive simultaneously. Pulse delay in one eye usually signifies a narrowing or blockage of the internal carotid artery on the affected side. The test is done by applying eye cups to the surface of the anesthetized cornea with light suction. The ocular pulse will be transmitted from the eye cup to an amplifier-recorder and displayed in wave form tracings; *e.g.*, left internal carotid artery stenosis produces a delayed pulse to the left eye and thus a visible delay in the left ocular wave tracing. This produces an electronic differential tracing which is skewed to the left.

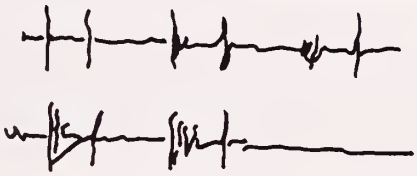
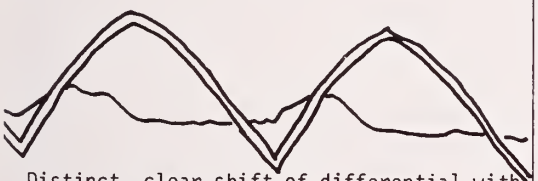
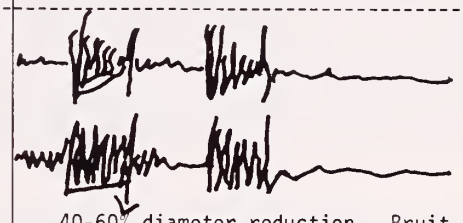
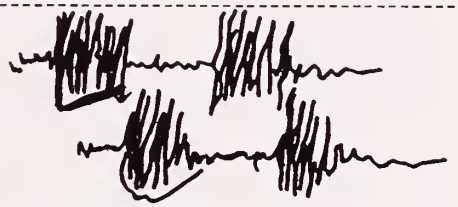
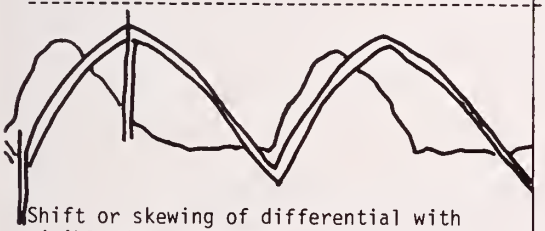
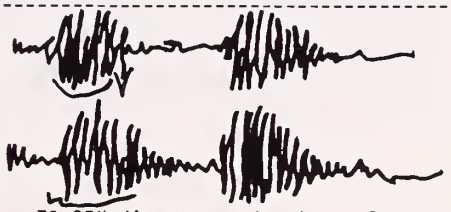
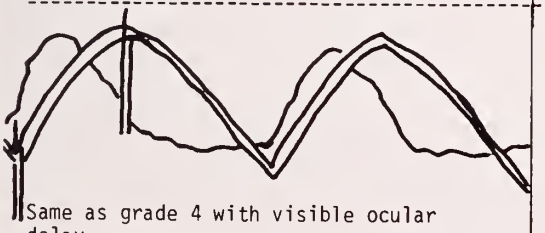
The ear pulses will be recorded for evaluation of the external carotid arteries. Photoelectric sensor clips are placed on the ear lobes to receive arterial pulses from branches of the external carotid arteries while the pulse waves are recorded simultaneously. In normal flow, no pulse delay will be recorded. If the ear pulse of one side is delayed, this will indicate significant disease in one external carotid artery.

### Interpretation of Testing

The CPA is evaluated in terms of the relative amplitude and duration of the bruit waveforms with respect to the first and second heart sounds. Empirical correlation of the bruit waveforms with the arteriographically-demonstrated occlusive lesions has produced subjective criteria for estimating the percentage of stenosis produced by a given lesion.

The oculoplethysmograms are evaluated on the basis of delay in transmission and reduction of amplitude. A delay of greater than 0.01 seconds in the onset of the upward deflection at the beginning of the anacrotic slope of one pulse

**TABLE 1**
**The Grading System of Combined OPG and CPA**

| OPG | Grade | CPA |
|---|---|---|
| <20% flow reduction. Flat or nearly flat differential not reflecting any definite phase shift | 1 Normal or not significant (negative) |  <40% diameter reduction. No bruit or short bifurcational or sub-bifurcational bruits |
|  Distinct, clear shift of differential with no visiboe ocular pulse delay | 2 Mild: 20-30% flow reduction |  40-60% diameter reduction. Bruit extending throughout the systolic interval |
| Same as grade 2 but with more pronounced differential | 3 Moderate: 30-40% flow reduction |  60-70% diameter reduction. Marked bruit throughout systole |
|  Shift or skewing of differential with visible delay of peaks or troughs in ocular pulses | 4 Severe: > 40% flow reduction |  70-85% diameter reduction. Strong bruit throughout systolic interval, occasionally extending into diastole |
|  Same as grade 4 with visible ocular delay | 5 Total or near total: > 80% flow reduction | >85% diameter reduction. No bruit-generally noted as negative. |

relative to the other is indicative of significant proximal arterial occlusive disease. That delay is confirmed by the differential tracing.

The results of both OPG and CPA are given in one of the five grades as outlined in Table 1. It is to be noted that the hemodynamic significance of a lesion is based on the observation that internal carotid blood flow reduction of 20 per cent is usually correlated with greater than 40 percent stenosis.[1]

### Clinical Materials

OPG-CPA tests on 1,650 patients were done at the Arizona Heart Institute for the period of September, 1976, through June, 1978. Arteriography was done in 171 (10 per cent) of the patients. The indications for testing included:

1. Asymptomatic patients undergoing complete cardiovascular screening.
2. Potential stroke victims by virtue of age, diabetes, hypertension, family history, presence of other atherosclerotic disease or other high-risk factors.
3. Cases of transient ischemic attacks.
4. Patients with known disease of the carotid artery to detect progression of the disease.
5. High-risk surgical patients to reduce the incidence of perioperative stroke.[2]

Of these 1,650 tests, 1,102 were negative or Grade One (67 per cent); 247 were abnormal (15 per cent), but hemodynamically insignificant (miscellaneous). These included external carotid artery stenosis, subclavian artery stenosis, aortic arch bruits and bruits of undetermined origin.

Three hundred and one were abnormal with hemodynamic significance (18 percent); i.e., 18 of every 100 tests showed hemodynamically-significant carotid arterial disease. These 301 included 96 Grade Two, 42 Grade Three, 81 Grade Four, and 82 Grade Five (Table 2). Of these patients, 171 had both OPG-CPA and carotid arteriogram; 29 showed total occlusion of the internal carotid artery by the OPG-CPA, 25 of which were confirmed by the arteriogram (about 86 per cent accuracy), and four (14 per cent) had significant stenosis, but on levels III or IV.

Fifty-one showed significant stenosis of the internal carotid artery by the OPG-CPA (Grade Three or Four), 46 of which were confirmed by the arteriogram (about 90.5 per cent accuracy), with four per cent false positives (two patients) and 5.5 per cent over-estimated cases (three patients) in this group.

Ninety-one cases were read as normal or Grade One by the OPG-CPA, 82 of which were confirmed by the arteriogram (i.e., about 90 per cent accuracy). The 10 per cent false negatives were attributable to non-stenosing ulcerative plaques (seven patients) and moderately significant (level II) stenosis (two patients).

From this data, we conclude that the overall accuracy of the OPG-CPA testing is about 90 per

**TABLE 2**

**Results and Grading of the 1,650 Patients Tested**

| HEMODYNAMICALLY INSIGNIFICANT | | HEMODYNAMICALLY SIGNIFICANT | | | |
|---|---|---|---|---|---|
| Normal - Grade 1 | Misc. | Grade II | Grade III | Grade IV | Grade V |
| 1102 (67%) | 247 (15%) | 96 | 42 | 81 | 82 |
| | | 18% | | | |

**TABLE 3**

**Results in 171 Patients who had both OPG/CPA and Carotid Arteriogram**

| | Insignificant Disease (Normal-Grade I) | Significant Disease (Grades II-IV) | Total Occlusion (Grade V) | TOTALS |
|---|---|---|---|---|
| OPG/CPA | 91 | 51 | 29 | 171 |
| Arteriogram | 82 | 46 | 25 | 153 |
| Accuracy | 90%° | 90.5%°° | 86%°°° | 90%°°°° |

°10% false negative. Seven patients had nonstenotic ulcerative plaques and two patients had Grade II
°°4% false positive (two patients) and 5.5% overestimated (three patients)
°°°14% erroneous assessment (four patients)
°°°°5% false negatives, 1% false positives and 4% erroneous assessment

cent, with one per cent false positives, five per cent false negatives and about four per cent erroneous assessments of the severity of the disease within the abnormal Grades II-V (Table 3). For purposes of statistical analysis, each carotid artery was evaluated independently of the opposite side.

The following three cases illustrate some examples of normal and abnormal findings (Figures 1, 2 and 3):

*Case 1:* A 71-year-old female without neurologic symptoms entered the Arizona Heart Institute for coronary artery surgery. The CPA examination was normal (Figures 1a, 1b). The OPG examination (Figure 1c) failed to reveal any visible eye pulse delay, but there was an upward deflection of the differential to the left. The normal CPA, lack of visible eye pulse delay and differential shift indicated total occlusion of the left internal carotid artery. This finding was confirmed by carotid arteriography (Figure 1d). At the time of coronary artery bypass surgery, extra precaution was taken to maintain high blood pressure and flow to avoid cerebral hypotension.

*Case 2:* A 68-year-old female entered the Arizona Heart Institute for coronary artery disease. She had described vague neurological symptoms, mostly related to dizziness with the stress of rapid movement. Prior to operation, she underwent non-invasive carotid artery testing. The CPA examination showed a bruit high over the left carotid artery (Figure 2a). The OPG examination (Figure 2b) demonstrated a visible eye pulse delay on the left with a deflection of the differential to the left and upward. The diagnosis of left internal carotid artery stenosis of greater than 70 per cent was made and the patient was subjected to carotid arteriography. The arteriogram showed a very tight narrowing of the left internal carotid artery (Figure 2c) which was operated upon three days prior to the coronary bypass procedure.

In this case, the non-invasive tests were helpful in determining the nature of the left cervical bruit prior to cardiac surgery. Failure to recognize the stenosis of the internal carotid artery might have lead to a perioperative complication.

*Case 3:* A 68-year-old man entered the Arizona Heart Institute with symptoms of unstable angina. He had no history comparable to transient ischemic attacks. CPA examination (Figure 3a, b) revealed bilateral carotid bruits; however, there was no visible ear or eye pulse delay nor skewing of the differential on the OPG tests (Figure 3c). The normal OPG examination in the presence of a positive CPA examination suggested bilateral internal carotid artery disease. At the time of coronary arteriography, both carotid arteries were visualized, revealing bilateral carotid narrowing (Figure 3d, e).

A right carotid endarterectomy was performed without incident. Three days later, while waiting for the second carotid operation, he developed severe chest pains; therefore, simultaneous left carotid endarterectomy and triple

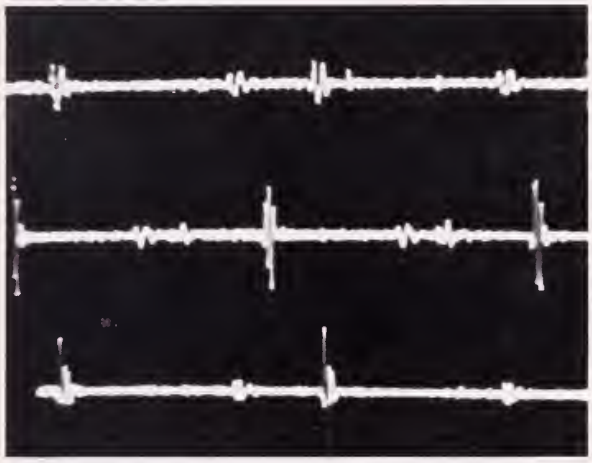


**Figure 1a. Case 1, normal right CPA.**

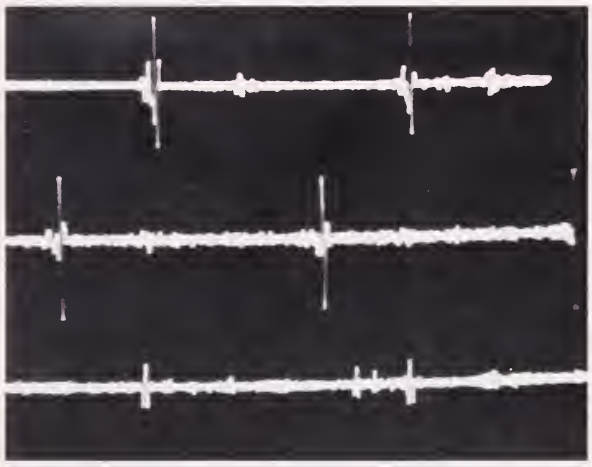


**Figure 1b. Case 1, normal left CPA.**

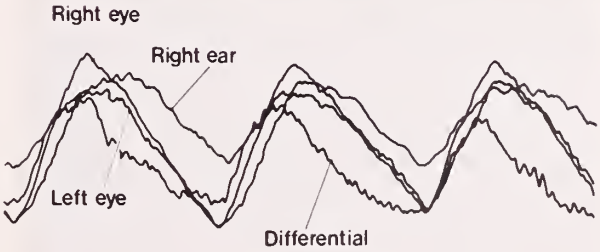



**Figure 1c. Case 1. OPG failed to reveal any visible eye pulse delay, but there was an upward deflection of the differential to the left, indicating significant disease of the left internal carotid artery most probably due to total occlusion.**

coronary artery bypass were performed without incident.

This case illustrated the value of combined OPG/CPA examination in the preoperative stroke screening program. On the basis of the OPG examination alone, the carotid lesions would have been overlooked.

**Figure 1d. Left carotid arteriogram in Case 1 showing total occlusion of the left internal carotid artery.**

**Figure 2a. Case 2. Left CPA showing significant bruit (high level).**

**Discussion**

The early detection of extracranial carotid occlusive disease is very important in preventing stroke. Although arteriography is the definite means of diagnosis of carotid occlusive disease, it carries definite morbidity and mortality. Therefore, it is restricted to potential surgical candidates and is not applicable for the early detection and periodic follow-up of carotid occlusive disease. Various non-invasive methods have been used for the detection of the extracranial arterial occlusive disease. These include the ophthalmodynamometry, thermography, cerebral blood

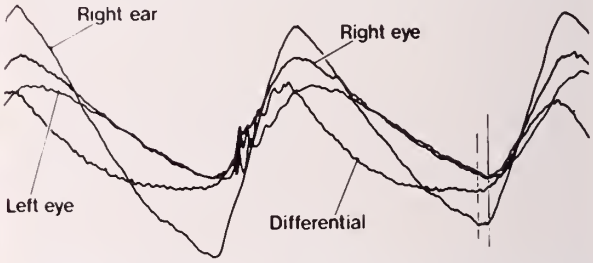



**Figure 2b. Case 2. OPG demonstrated a visible eye pulse on the left with deflection of the differential to the left and upward indicating significant disease of the left internal carotid artery.**

**Figure 2c. Case 2. Carotid arteriogram showing very tight narrowing of the left internal carotid artery.**

flow, ultrasonic arteriography, carotid phonoangiography and oculoplethysmography.[3,4,5] Oculoplethysmography is now well established and documented to be of significant value in the diagnosis of extracranial carotid occlusive disease.[6,7]

Oculoplethysmography in conjunction with carotid phonoangiography (OPG-CPA) has been our method of non-invasive testing because of its being safe and reliable as compared with arteriography, inexpensive, and having no absolute contraindications with no complications.

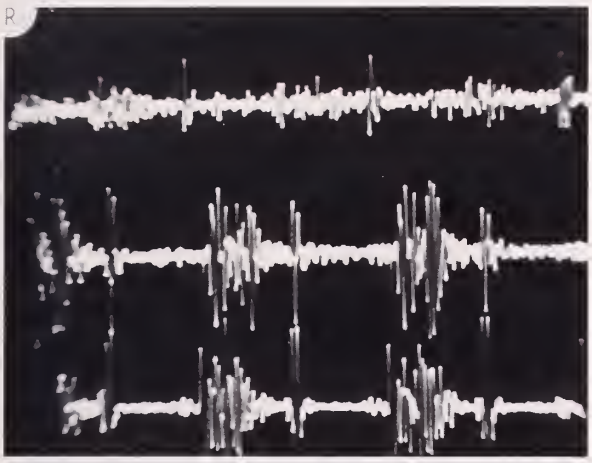


**Figure 3a. Case 3. Right CPA showing significant bruit.**

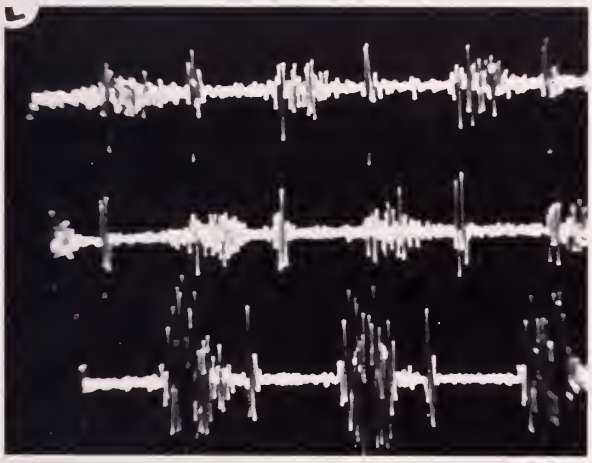


**Figure 3b. Case 3. Left CPA showing significant bruit.**

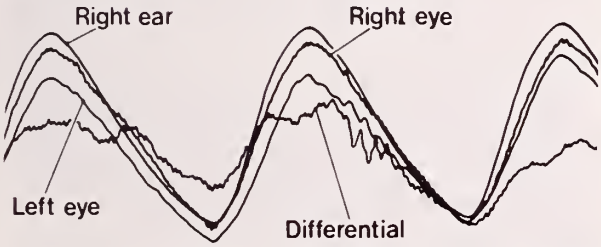



**Figure 3c. Case 3. OPG demonstrated no visible eye delay nor skewing of the differential, that normal OPG in the presence of a positive CPA suggested bilateral internal carotid artery disease.**

The CPA is used in conjunction with the OPG in our laboratory because (1) it helps in ruling out bilateral carotid disease when there is no delay between the right and left eye pulse wave; (2) the deficiency of phonoangiography in detecting total or near total occlusion of the internal carotid artery can be detected by the OPG, and (3) the phonoangiography is more sensitive in detecting lesser degrees of stenosis associated with minimal reduction in flow.

### High Yield

Our present study presents these two complementary diagnostic tests that give an overall accuracy of about 90 per cent. From our previous data, 301 studies were abnormal with hemodynamic significance (i.e., about 18 per cent). This will reflect the high yield of these tests in the screening of high-risk patients. The main reason for false negative results of this testing in our patients was the presence of ulcerative plaque lesion without significant reduction in the carotid blood flow; however, the majority of these pa-

**Figure 3d. Case 3. Right carotid arteriogram showing significant narrowing of the internal carotid artery.**

**Figure 3e. Case 3. Left carotid arteriogram showing significant narrowing of the internal carotid artery.**

tients had symptoms of transient ischemic attacks which might necessitate the arteriogram as seen in many of the 91 cases which had normal OPG-CPA who underwent carotid arteriogram.

Kartchner *et al.* reoprted an overall accuracy of 90 per cent in OPG-CPA testing in over 8,500 tests performed on 5,900 patients. The common factors encountered in 10 per cent false negative OPG evaluations as reported by Kartchner were: (1) fairly equal bilateral occlusive internal carotid stenosis without a diagnostic ear pulse to eye pulse delay; (2) a stenotic lumen greater than 2.5 mm. or a pre-endarterectomy internal carotid flow greater than 100 ml./min. representing less than 20 per cent flow reduction; and (3) technical or interpretive error in OPG or anomalies not disclosed by carotid arteriography.[6] The diagnostic accuracy of pulse waveform timing has been confirmed by other diagnostic centers, most notably Northwestern University in Chicago, by Doctor Gross, and Baylor University in Dallas, by Doctor Perrson.

It is to be noted that arteriography gives much more information than just the presence or absence of occlusive lesion, such as location and extent of the disease, ulcerative lesions, fibromuscular hyperplasia and kinks. Therefore, the OPG-CPA is to be considered as an adjunct to arteriography where it provides valuable information in selecting patients for carotid arteriography. It will also eliminate some of the technical and human error in preoperative carotid arteriography and its interpretation.

Patient's acceptability of these tests has been universal, studies have shown. The complications of OPG have been negligible.[7] We had no single complication in our 1,650 patients. Kartchner reported four instances of mild corneal abrasion, which promptly healed spontaneously, and one case of mild conjunctival hemorrhage in more than 8,500 tests.

### Our Post-Testing Recommendation Protocol

Upon completion of the non-invasive cerebrovascular testing, a recommendation is made to the referring physician: (1) a normal test does not require further study except to detect disease which might be due to embolization from an ulcerative plaque, where arteriography might be required; or (2) further evaluation and/or close observation is suggested for Grades 2, 3 and 4; or (3) focal symptoms suggesting emboli may indicate arteriography despite negative OPG; or (4) interval follow-up OPG-CPA studies may be appropriate to evaluate for progression (2-12 month) intervals, depending on the symptoms and severity of the findings.

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# Surgical Treatment Of Obesity

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*Morbid obesity is a lethal, life-shortening disease which can rarely be controlled by medical measures. Jejuno-ileal bypass is an acceptable remedial approach. Nineteen cases are presented with follow-up. Since the procedure is fraught with complications, patient selection is important.*

*Intestinal shunt is no panacea, but it certainly brings a better quality of life to some of these unfortunate individuals.*

MASSIVE obesity is a serious disease of life-shortening severity. By any standard, obesity is a major health issue in the United States. It affects at least 40 million men, women and children. Long-term medical therapy is usually unsatisfactory. Most obese patients will not remain in treatment; of those who do remain, most will not lose significant weight, and, of those who do lose, most will regain weight promptly.

Surgical intervention is one alternative treatment for this complex problem. Intestinal short circuit was introduced by Payne *et al.* in 1969[1,2] and evolved into the currently used jejuno-ileal shunt in which food is rapidly transported through the small intestine which has been reduced to 18 inches. The induced weight loss seems to affect favorably the Pickwickian syndrome, the hypertension, and the hypercholesteremia which are frequently associated with obesity. It also favorably alters carbohydrate metabolism and improves the emotional and psychological outlook toward life, which frequently allows the patient to return to work and regain his or her self-respect.

### Selection of Patients and Preoperative Evaluation

A combination of several criteria was used to select patients:

(a) obesity of massive degree; (b) failure of conservative measures to correct obesity; (c) absence of any endocrinopathy, and (d) presence of certain complications of obesity: Pickwickian syndrome, hypercholesteremia, severe; diabetes, hypertension, and (e) assurance of patient's cooperation in the prolonged follow-up evaluations.

Nineteen patients were selected for intestinal shunt during an eight-year period. All were seen and evaluated in the office at least twice before being accepted for surgery. Baseline studies were carried out with special attention directed toward detecting possible endocrine causes of obesity.

There were 13 female and six male patients, with an age variance of 16 to 53. The weight varied from 200 to 390 pounds, with expected "ideal" weight according to height and age varying from 100 to 180 pounds. Nine patients manifested marked elevation of the systolic and diastolic pressures (average: 155/105) while under medical treatment. Four cases had severe hypercholesteremia (average: 310 mg./100 ml.). Six patients showed elevated fasting blood sugar (average: 145 mg./100 ml.). Five patients presented with marked Pickwickian syndrome and consequently were unable to work.

### Operative Procedure and Hospital Course

The bowel was prepared preoperatively by daily enemas. All patients received general anesthesia. The surgical approach was done through a midline or right paramedian incision. An end-to-side, jejuno-ileal bypass was then accomplished using 12 inches of jejunum from the ligament of Treitz and six inches of ileum from the ileocecal valve as described by Payne and others.[1] The abdomen was then closed in layers using standard technique. All had a naso-gastric tube for 24 hours. All were out of bed the day following surgery and started on progressive liquid diet 24 hours later. All left the hospital within a week on a low-fat, low-carbohydrate diet, and oral aspirin.

### Complications

There was one hospital death due to a massive pulmonary embolus which occurred four days after surgery (proved by autopsy).

Later complications were divided into two categories as follow:

1. *Minor complications,* requiring only outpatient care with minimal disability:

(a) *Wound infections*: Six patients developed wound infections which responded to standard, appropriate antibiotic therapy and local drainage.

(b) *Electrolyte imbalance*: Due to severe diarrhea the first year postoperatively, there was important mineral and electrolyte loss through the stools. Fifteen patients showed moderate to severe decrease of serum K as low as 1.8 mg./100 ml., and oral replacement of

K was required. No other deficiencies, as reported by others, were encountered.[3,4] None required replacement of K after the first year.

(c) *Polyarthritis*: Immunologic abnormalities are believed to play a role in the development of post-shunt arthritis. Two patients manifested severe, generalized polyarthritis requiring bed rest and pain medication on several occasions.

2. *Major complications*, requiring inpatient care with important disability and mortality:

(a) *Pulmonary emboli*: Three patients had massive pulmonary embolizations. One died (see above) and the other two responded satisfactorily to conventional anticoagulation therapy.

(b) *Renal stone formations*: (calcium oxalate stones) Intraintestinal calcium is believed to be saponified by the excessive fatty acids in the stool which results in less calcium available to bind the oxalate into its insoluble form; therefore, intestinal absorption of oxalate is increased.[5]

Three patients developed post-shunt renal calculi the first year postoperatively. One required surgery to relieve ureteral obstruction. The two others passed their stones spontaneously.

(c) *Rectal ulcerations*: Due to the severe diarrhea and local irritation during the first six months, two patients developed deep anal ulcers requiring surgical relief.

(d) *Pseudo-intestinal obstruction*, or Bypass enteropathy, is thought to be due to chronic inflammation in the excluded bowel: blind loop syndrome. Three patients developed on several occasions symptoms of diarrhea, abnormal distention, and gas-fluid levels on x-ray studies. They were treated with a broad spectrum of antibiotics with improvement.[6]

(e) *Redundant skin with incisional hernias*: Due to the rapid weight loss, some patients developed unsightly redundant skin in many areas. Six patients manifested excessive abdominal skin associated with incisional hernias, and surgical correction approximately two years after the shunt surgery was required.

**Results and Discussion**

All patients were followed very closely from one to eight years. They all lost substantial weight during the first year, varying from 50 pounds to 150 pounds (Figure 1). Subsequently, the loss became very individualized. Some continued to lose; some stabilized, while others regained their original weight. Twelve patients reached a level of five to 20 pounds above the ideal weight approximately three years after surgery (Figure 2). However, the voracious appetite and large caloric intake which the patients had before surgery have continued largely unchanged.

**Figure 1. Preoperative photograph and postoperative photograph of a patient one year after surgery. Note the excessive skin (right) which required corrective surgery.**

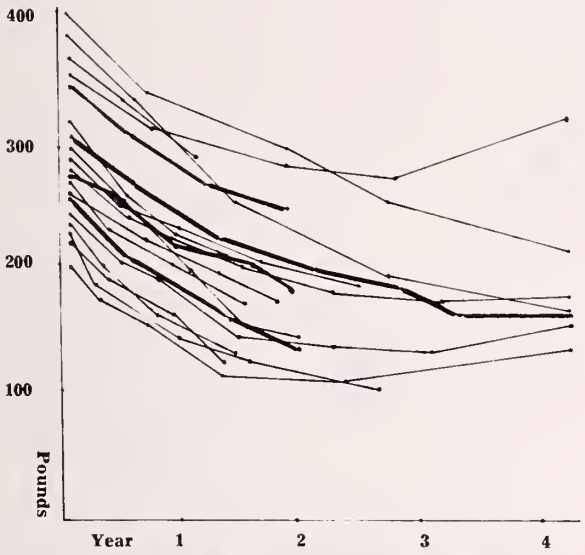


**Figure 2. Post-shunt weight loss.**

Five of the nine hypertensive patients showed some favorable changes in their blood pressure without medical help. There was sustained reduction in the serum cholesterol in all patients with levels as low as 100 mg./100 ml. Four of the six patients with elevated fasting blood sugar showed sustained improvement.

Most complications and disabilities seem to occur the first year when weight loss is very rapid. During this period, liver function tests showed abnormal values in all 19 patients: high alkaline phosphatase, bilirubin, SGOT and LDH.

By the second year, most of the above abnormal values returned to normal levels except for cholesterol, which remained low.[7]

The number of patients studied is too small to draw any statistical conclusions; however, it appears that the final results are unpredictable in spite of standard technique and careful selection. About half of the patients presented showed improvement in their physical and emotional conditions. The other half responded unsatisfactorily to the shunt with minimum change in the preoperative symptoms and weight.

It is very important for the patient to know the limitations of the surgery and the poor predictability of the final results. Morbidity of the shunt procedure is still very high, and cautious selection of patients is advised.

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# Medical Grand Rounds

**From the West Virginia University Hospital**

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## Insulin Resistance

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*Insulin resistance exists whenever plasma glucose is inappropriately elevated for a given level of insulin. Three major categories are primary cellular resistance, states of circulating insulin antagonists, and immunologic insulin resistance.*

*Primary cellular resistance is typified by obesity and nonketotic diabetes, and is most likely due to an intracellular metabolic defect. Diet and weight reduction have been the most effective approach to therapy, but increase or institution of exogenous insulin may also be necessary. In states of insulin antagonism the offending insulin antagonist will decline with improvement of the causative illness, but a temporary increase in insulin is often required. Immunologic insulin resistance occurs when an excessive number of antibodies to exogenous insulin develop. Improvement may be seen with the use of another type of insulin such as all-beef or all-pork insulin, but when the resistance is more severe, institution of glucocorticoids or sulfated insulin is required.*

SINCE the initial use of insulin in the 1920s a wide range of insulin requirements among different types of diabetic patients has been observed. Some patients require more than 200 units daily, but this is relatively rare. Far more common is the observation that obese, non-ketosis-prone diabetics require more insulin than their more normal-weight, ketosis-prone counterparts. When diabetics undergo surgery or suffer some severe medical illness such as infection, their usual dose of insulin no longer suffices. Likewise, it is well known that insulin requirements increase during pregnancy.

### Insulin Resistance Defined

All of these states are examples of insulin resistance, which can be defined as "a rather general term loosely used to describe situations in which insulin's effects are subnormal."[1] It is easy to understand that insulin resistance may occur in non-diabetics as well as diabetics. The reason that such a general definition is necessary is that insulin resistance can be caused by many different mechanisms and often a combination of mechanisms.

At risk of over-simplifying, I have divided insulin resistance into three general categories:

I. Primary cellular resistance
II. States of insulin antagonism
III. Immunologic insulin resistance.

The first category includes those states in which there is no known circulating antagonist, for example, obesity, non-ketotic diabetes, aging, and lipoatrophic diabetes. The second is those states in which there is a known antagonist such as cortisol or catecholamines. The third encompasses all antibody mediated insulin resistance. Of course, individual clinical cases often represent a combination of problems, i.e., obesity and pregnancy, or obesity and surgical stress (types I and II).

### Primary Cellular Resistance

Resistance at the cellular level may occur at any of four different sites: (1) receptor affinity, (2) receptor number, (3) glucose transport, and

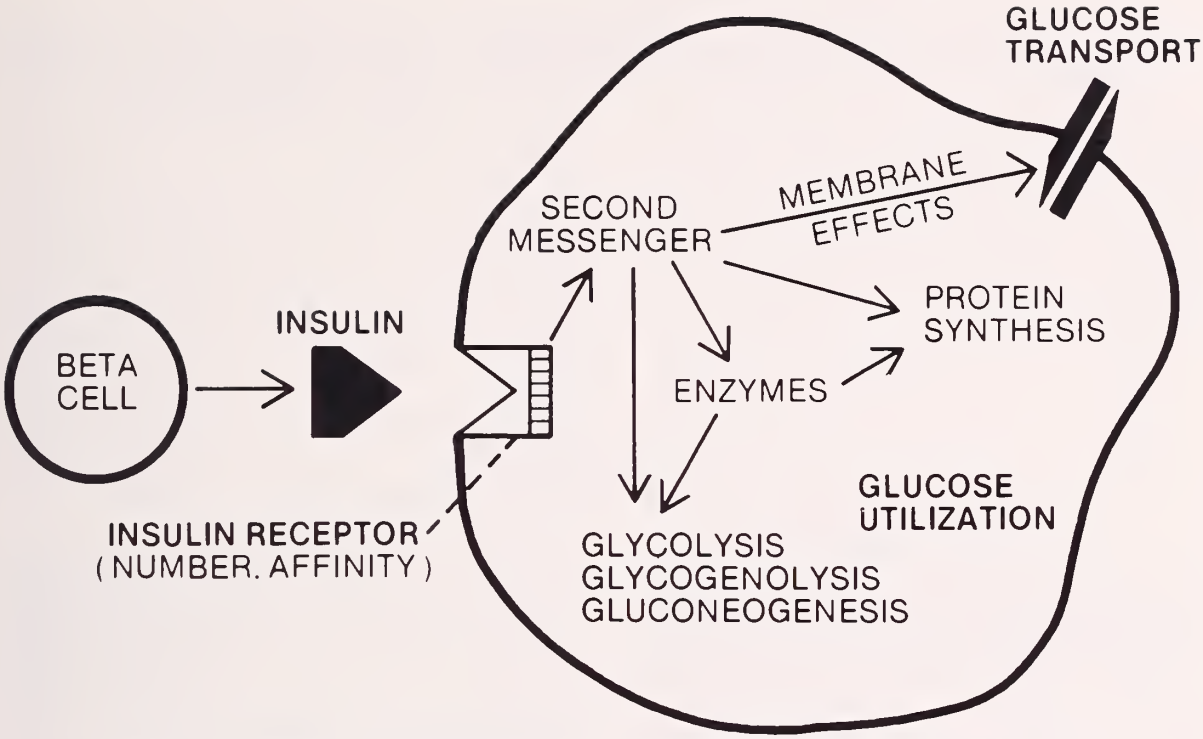


**Figure 1. Schematic representation of sites of insulin resistance at the cellular level.**

(4) glucose utilization (Figure 1). In the past few years, the insulin receptor has received a tremendous amount of attention, while glucose transport and utilization have not been studied so extensively. With these sites in mind, I would like to discuss two common causes of insulin resistance, obesity and non-ketotic diabetes. Interest in these states was stimulated by the discovery of elevated insulin levels in both.

### Obesity

Insulin levels have been known to be elevated in obesity for about 15 years.[2] Because of euglycemia in the face of hyperinsulinemia, this is an insulin-resistant state. Obese, non-diabetic patients have glucose tolerance curves indistinguishable from non-obese subjects, but with higher insulin levels at all points along the curve (Figure 2). This has been shown to be normal insulin and no circulating insulin antagonists have been found.[3,4] Therefore, some intrinsic cellular insensitivity to insulin has been postulated.

Kahn, Neville, and Roth (1973)[5] were the first to study the insulin receptor in obesity. They used the genetically-obese mouse as a model and showed decreased binding of insulin to liver cell membrances. In comparison to normal mice, the obese mice had decreased receptor numbers but normal binding affinity to those receptors present.

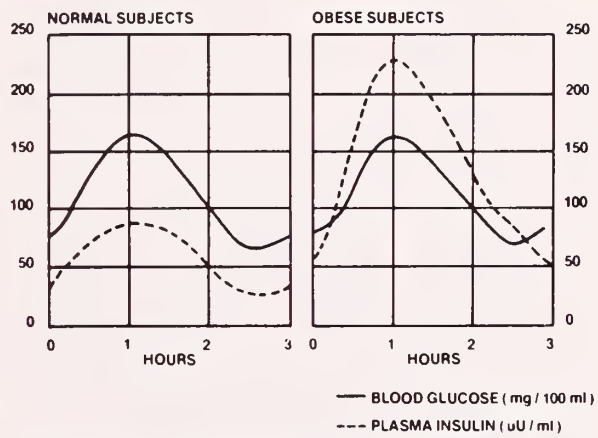


**Figure 2. Glucose and insulin responses to an oral glucose load in normal and obese subjects.**

The basic technique for examining receptor data is the Scatchard plot. Bound and free insulin are measured with increasing concentrations of insulin in a receptor medium. Bound/free insulin is then plotted against bound insulin concentration (Figure 3). Affinity may be calculated from the slope of this curve. Total receptor number is derived from the X-intercept and expressed as molecules of insulin bound per number of receptor cells. After Kahn's initial work, decreased receptors were also found on adipocytes,[6] hepatocytes,[7] and muscle cells[8] in obese mice and rats; and circulating monocytes and adipocytes in obese humans.[9] Figure 4 illustrates a typical Scatchard plot using monocyte

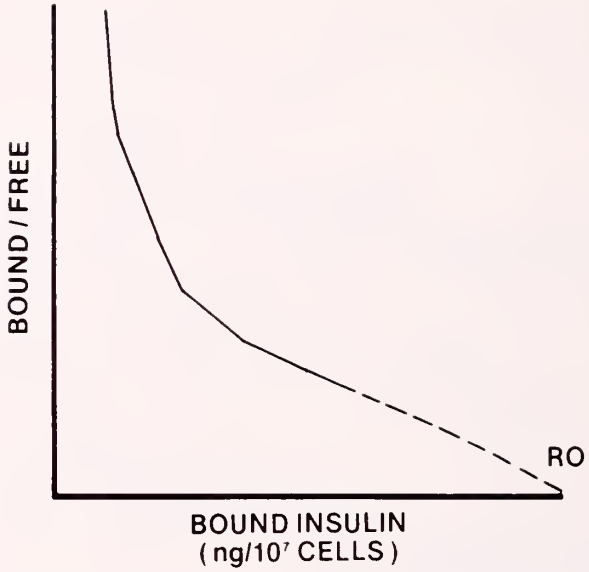


**Figure 3. Scatchard plot: Total receptor number (RO) is calculated from projected x — intercept = number of insulin molecules bound by known number of receptor cells (Monocytes or Adipocytes).**

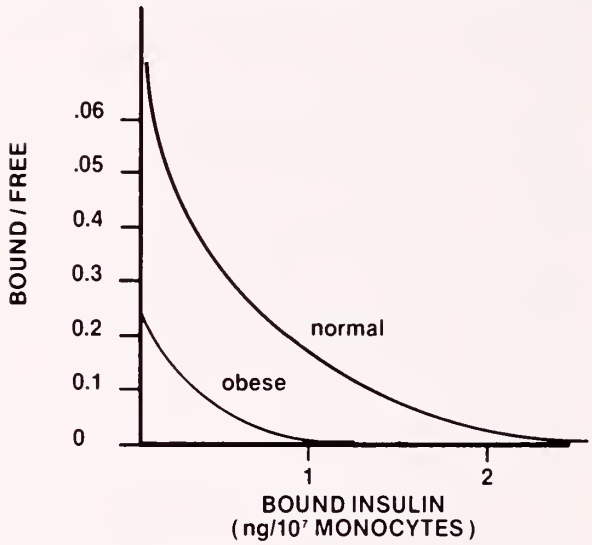


**Figure 4. Scatchard plot: Demonstrates parallel affinity but markedly decreased receptor number in obesity.**

receptors in an obese patient. The affinity (slope) is indistinguishable from normal, but the receptor number (X intercept) is markedly decreased.

What can be concluded? Before attributing the insulin resistance of obesity to decreased receptor number it is necessary to examine several other aspects of receptor interaction. It has been shown that in normal circumstances cellular response to insulin increases with increasing receptor occupancy up to an occupancy rate of 10 per cent.[10] Beyond this, a step distal to the receptor becomes rate-limiting. If the total number of receptors is decreased, an increased percentage occupancy is required to induce the same amount of glucose transport. Increased insulin levels are necessary and are readily achieved by the normal pancreas. Indeed, in obese, non-diabetic patients, it has been shown that the maximal rates of glucose transport are normal.

In spite of this ability of increased insulin to compensate for decreased receptor number, it is more likely that increased insulin is the cause, rather than the result, of diminished receptors. Bar *et al.*[11] have shown an inverse relationship between insulin levels and receptor number. Studies of several *in vitro* systems, as well as studies of obese subjects before and after dieting, have shown that insulin can regulate its own receptor; i.e., an increase in insulin causes a decrease in receptor number.

Just such data led Olefsky[1] and others to propose that the primary defect inducing insulin resistance in obesity is altered intracellular glucose metabolism. A defect in glucose oxidation involving the hexose monophosphate (HMP) shunt[12] has been found. In addition, there is impaired conversion of glucose to fatty acids.[12,13] It has been proposed that this latter defect leads to an abnormal increase in the NADPH/NADP ratio which can inhibit the HMP shunt.[14]

Therefore, the most likely mechanism for decrease in receptor number in obesity is that proposed by Olefsky, Lockwood, and several other investigators[1,15]: that obesity causes a compensatory hyperinsulinemia. The number of insulin receptors then decreases because of the normal negative feedback mechanisms (Figure 5).

An alternate mechanism is the one which is so often implied in the recent literature, that obesity directly causes decreased receptor number, which leads to insulin resistance and hyperinsulinemia. This mechanism offers no explanation of the cause for decreased receptor number and ignores intracellular defects.

The ultimate action of insulin on glucose metabolism represents a complex interplay between insulin receptors, glucose transport systems, coupling of receptors and the transport system, and a number of intracellular enzymatic steps. Decreased binding can completely account for insulin resistance only when all other steps are normal. Binding may be relatively more important in muscle or liver tissue, but this needs further confirmation.

The treatment of insulin resistance in the obese patient is both very simple and most difficult. Bar[11] and, now, numerous other investigators[16] have shown that with weight loss insulin levels

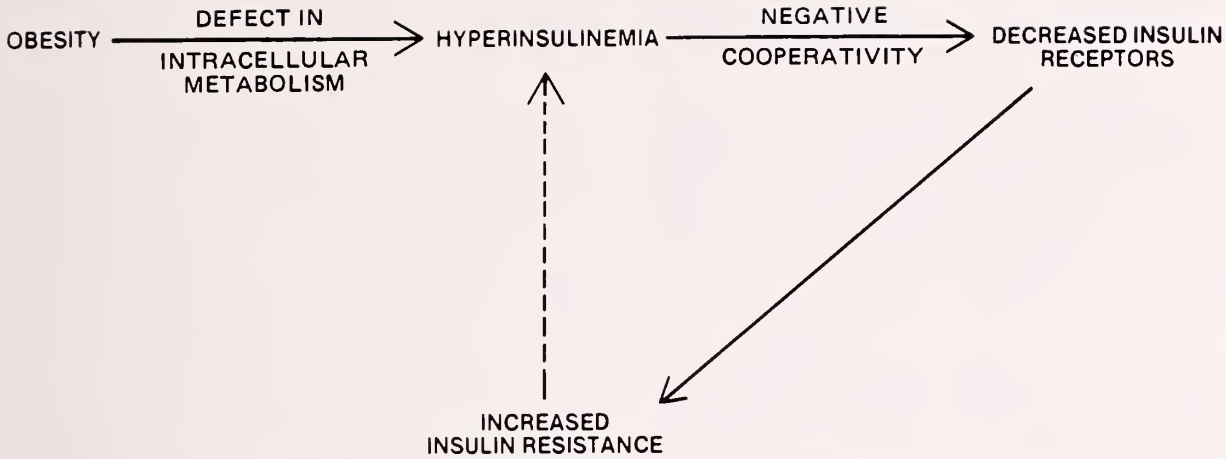


**Figure 5. Proposed mechanism of decreased insulin receptor number in obesity.**

decrease. This leads to increased receptor number, just as expected. According to the mechanism proposed above, one must assume that the primary improvement is in intracellular glucose metabolism.

### Non-ketotic Diabetes

When insulin was first measured in diabetics in 1960,[17] an unexpected finding was that many patients had increased plasma insulin levels. This category of patients was later recognized to have non-ketotic diabetes.

It is now well known that patients with chemical diabetes (normal fasting blood glucose) have increased insulin levels.[18] Since they have increased insulin for a given level of glucose they meet the criterion for insulin resistance. In addition, non-ketotic patients with moderate (110-150 mg per cent) and more severe (> 150 mg per cent) elevation of fasting glucose can also be shown to have insulin resistance. Kimmerling *et al.*[18] administered continuous infusions of glucose (6 mg/kg/minute) and insulin (80 mU/minute) to normals, chemical diabetics, and non-ketotic diabetics with fasting hyperglycemia. This was continued until a steady state of plasma glucose and insulin levels was achieved. Insulin stabilized at approximately the same level in all patients, whereas glucose levels were clearly higher in both diabetic groups. In ketosis-prone diabetics, no such insulin resistance has been found when similar glucose and insulin infusions were given.[19]

The etiology of insulin resistance in non-ketotic diabetes is believed to be very similar to that in obesity. Most studies in humans have been done with monocytes. In all types of non-ketotic diabetes, decreased numbers of insulin receptors, but normal affinity, have been demonstrated.[20] Improvement in the diabetic state leads to increased binding. The mechanism is unknown, but it has been theorized that improvement in intracellular metabolism has occurred. This may be by loss of weight or even by dieting before any significant weight loss has occurred. Sulfonylureas have also been shown to improve insulin binding,[21] although not by directly increasing receptors; perhaps they exert an effect on intracellular metabolism.

Treatment of non-ketotic diabetes often involves insulin therapy, but insulin can only increase the percentage of receptors bound, and cannot correct defects in intracellular metabolism. It is a common clinical observation that many non-ketotic diabetics appear to require more and more insulin without an appreciable improvement in control. Some diabetologists have suggested that insulin might actually be detrimental by decreasing insulin receptors[16,22] or by inducing antibody formation with possible attendant immunologic insulin resistance.[23] The best treatment is to strive toward ideal body weight. However, the consensus is that non-ketotic diabetics should be given insulin if diet alone fails to provide acceptable control.

### States of Insulin Antagonism

Circulating hormones which oppose the action of insulin are found in numerous endocrine disorders. Common examples are pregnancy and hyperthyroidism. In pregnancy there is elevation of human placental lactogen, which is structurally and physiologically similar to growth hormone and which is directly antagonistic to the action of insulin on glucose assimilation. In hyperthyroidism, on the other hand, there is enhanced sensitivity to catecholamines, which induces hyperglycemia, probably by stimulating both gluconeogenesis and glycogenolysis. It is beyond the scope of this discussion to consider each disease in de-

tail. Other examples include pheochromocytoma, acromegaly, Cushing's syndrome, and glucagonoma.

The most common situations in which circulating antagonists are seen involve stress related to surgery or medical illness. Treatment of all cases of insulin antagonism consists of treating the primary disorder and instituting or increasing exogenous insulin temporarily to control hyperglycemia.

### Immunologic Insulin Resistance

Immunologic insulin resistance (IIR) usually is due to antibodies to exogenously-administered insulin. In rare instances, circulating antibodies to endogenous insulin in patients who have never been treated with insulin have been described.[24] Cases of circulating antibodies to the insulin receptor (type B patients with acanthosis nigricans) have also been reported.[25] Two types of antibody mediated phenomena may be seen with exogenous insulin:

1. IgE mediated: insulin allergy with local or systemic manifestations of the immediate hypersensitivity type.
2. IgG mediated: insulin resistance due to circulating antibodies to the insulin molecule.

These two types may occur simultaneously. One extensive review of IIR showed that 30 per cent of 34 patients with insulin resistance also had insulin allergy.[26] Allergy often occurs in patients who have had discontinuous insulin treatment. IgE type reactivity can be demonstrated by the Prausnitz-Küstner test for passive transfer of immunity. Beef insulin is generally found to be more antigenic than pork, and pork insulin more than fish insulin. Mild degrees of allergy are common and reactions usually self-limited. It is estimated that local reactions occur in five to 10 per cent of patients placed on insulin, with systemic reactions seen in only one to two per cent.[27]

Most local reactions are mild and transient and require no treatment or only a short course of diphenhydramine. If local symptoms persist, a trial of all-pork and all-beef insulin may be given. Fish insulin may be better but is difficult to obtain. When reactions are more severe or systemic, desensitization is necessary if insulin therapy is required. The usual desensitization begins with 0.00001 units of single peak, regular insulin given intradermally and subsequent doses increased by a factor of 10 three times a day.[28] When a dose of one unit is reached, it may be given subcutaneously and increased gradually to desired levels. This regimen requires about one week to reach therapeutic ranges but may be accelerated when insulin therapy is more urgent.

### Mechanism Poorly Understood

The mechanism of desensitization, whether spontaneous or by the above regimen, is poorly understood, but is believed to be due to formation of "blocking antibodies,"[23] i.e., IgG antibodies which bind to insulin and prevent its interaction with IgE. This is also the area in which insulin allergy and insulin resistance appear to merge. There is an increased incidence of insulin resistance in patients with insulin allergy and vice versa.[29] Occasionally, a patient with insulin allergy undergoing desensitization will develop diabetic ketoacidosis. This may be due to excessive IgG anti-insulin antibodies.

Why some patients develop immunologic insulin resistance while on insulin therapy and others do not isn't known. As in patients with insulin allergy, there is often a history of intermittent insulin therapy. Such intermittent antigenic challenges are known to induce an anamnestic antibody response with resultant high-antibody titers. All patients on insulin have IgG insulin antibodies.[30] These appear in less than six weeks, and probably only a brief exposure to insulin is necessary to stimulate their formation. Yet, only a very small percentage of insulin-treated diabetics actually develop IIR. The binding capacity of these antibodies is not usually great enough to prevent availability of adequate amounts of free insulin for receptor interaction. Most patients with poor response to insulin therapy, even with dosages above 100 units, do not have IIR, but factors such as obesity, poor compliance, or infection are usually responsible.

### Maximal Binding Capacity

IIR arbitrarily has been said to exist when insulin requirements exceed 200 units daily. Unfortunately, there are frequent false positives when insulin dosage is the sole criterion. A more objective method of defining IIR involves measurement of maximal binding capacity (MBC). Berson and Yalow devised a method for measuing MBC some twenty years ago.[31] They used an *in vitro* system in which an electrophoresis is performed with a patient's serum plus labelled and unlabelled insulin. The MBC of the patient's serum is calculated by Scatchard analysis, as depicted in Figure 6. Two antibody populations have been identified, one being a low-affinity, high-capacity antibody, Ab1: the other, a high-affinity, low-capacity antibody, Ab2. In most insulin-treated patients the MBC does not exceed 10-20 mU/ml of plasma. In a recent review of IIR, Davidson and DeBra[32] were able to differen-

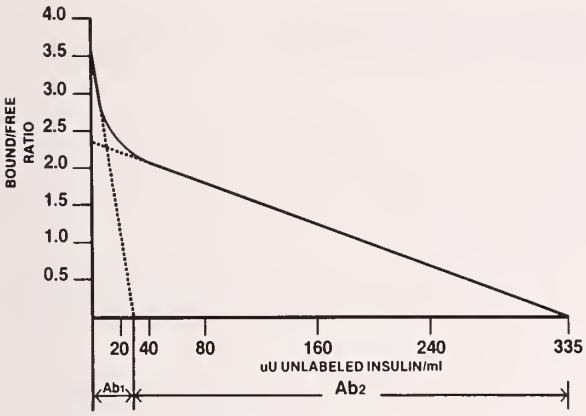


**Figure 6. Scatchard analysis of MBC. Two antibody populations are identified: Ab1 — high affinity, low capacity; Ab2 — low affinity, high capacity. MBC is calculated as the sum of Ab1 and Ab2 expressed in milliunits of insulin bound per ml. of patient serum (mU/ml).**

tiate immunologic from non-immunologic resistance by defining immunologic resistance as a MBC greater than 30 mU/ml.

### Treatment

Several modalities of treatment of IIR exist. Since most insulin in current use is a mixture of beef and pork insulin, either all-pork or all-beef may be tried. Another possibility is monocomponent insulin, which is even more purified insulin than the single peak type. Only a 50 per cent success rate in reducing the insulin requirement has been obtained by these methods.[32,33]

Glucocorticoids are the most popular and the most widely-used treatment, with a success rate of approximately 75 per cent.[26] When uncontrolled hyperglycemia or ketoacidosis occurs, or when a patient with known insulin allergy must be started on insulin in an emergency, prednisone 40-60 mg or an equivalent dose of hydrocortisone is given. Maximal effects are not seen for several days to weeks, but the improved response to insulin may be life-saving. Insulin dosage must be reduced in parallel with this improvement in order to avoid hypoglycemia. The glucocorticoid is subsequently tapered to the lowest level which is effective.

Another way of treating IIR is with sulfated beef insulin, a chemically-modified form of insulin. Davidson has been using sulfated insulin for almost 10 years, and feels that it is the most effective form of treatment presently available.[32] It is about one-half as potent per unit weight as is regular insulin, but is less antigenic and combines less avidly with insulin antibodies. In addition, compared to glucocorticoids, it has the advantage of being immediately effective. Hypoglycemia is less of a problem since the dosage can be stabilized early. A major drawback is the continued investigational status of this drug.

### Unusual Types of Insulin Resistance

Because of limited time I have not discussed the more unusual causes of insulin resistance. A few of the more interesting ones are listed below:

1. Acanthosis nigricans syndromes: type A with decreased receptor number, and type B with circulating anti-insulin receptor antibodies[25]
2. Secretion of immunologically-normal, but biologically-weak, insulin
3. Spontaneous development of antibodies to endogenous insulin
4. Secretion of excessive proinsulin
5. Inability of target tissues to respond to insulin even when insulin receptors are normal.

It is now apparent that defects may occur at virtually any step from synthesis and secretion of insulin by the beta cell to intracellular pathways of glucose metabolism. As research progresses we can expect the known causes of insulin resistance to increase in both number and complexity.

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# WHEELING HOSPITAL

**Wheeling, West Virginia**

Announces Course

## BALANCE DISORDERS

**Thursday, September 20, 1979**

Approved for 8 Credit Hours Category I for the Physician's Recognition Award of the AMA. Acceptable for 8 Prescribed Hours by the American Academy of Family Physicians.

This course is designed for the family practitioner and the many various specialists seeking better understanding and improved competence in the diagnosis and management of the patient with any form of dizziness or disequilibrium. The registration fee is $25.00 and includes the course-related materials, luncheons, refreshments and cocktails. The topics covered will include:

Anatomy and Physiology
Diagnosis and Evaluation
Electronystagmography
Hyperlipoproteinemia and Vertigo
Basilar-Vertebral Artery Insufficiency
Aged Otoliths
Management of Hyperlipoproteinemia
Abnormal Glucose Metabolism
Ocular Vertigo
Hypoglycemia

### Outstanding Visiting Faculty Includes:

**Sidney N. Busis, M. D.**
Clinical Professor of Otolaryngology
University of Pittsburgh
School of Medicine
Pittsburgh, Pennsylvania

**DeWitt E. DeLawter, M. D.**
Clinical Professor of Medicine
Georgetown University
School of Medicine
Washington, D. C.

**Muriel D. Ross, Ph. D.**
Associate Professor of Anatomy
University of Michigan
School of Medicine
Ann Arbor, Michigan

**James T. Spencer, Jr., M. D.**
Clinical Associate Professor of Otolaryngology
West Virginia University
School of Medicine
Morgantown, West Virginia
Clinical Division
Charleston, West Virginia

**B. Todd Troost, M. D.**
Associate Professor of Neurology and Ophthalmology
University of Pittsburgh
School of Medicine
Pittsburgh, Pennsylvania

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REGISTRATION FORM

## BALANCE DISORDERS

**September 20, 1979**

NAME_____ SPECIALTY_____

ADDRESS_____ CITY_____ STATE_____

Registration fee is $25.00. Please make checks payable to Wheeling Hospital and mail with this form to: George M. Kellas. M. D., Director, Wheeling Hospital, Continuing Medical Education, Medical Park, Wheeling, West Virginia 26003.

# *A message from . . .*

# *The President*

## WE'RE NOT INTIMIDATED!

OCCASIONALLY, in my observations of attitudes within the medical community, I have been surprised to find some who seem almost intimidated by the number, complexity and magnitude of the problems facing the profession.

I am surprised at this because I feel not the least bit intimidated myself. It's not that I go about minimizing things or burying my head in the sand. Rather, it is because I like to examine what problems others might have in dealing with us. They have enormous problems.

There is no question that our chief threat lies in government, with all of its abrasive bureaucratic facets. In other contexts, I have referred to the bureaucracy as a collection of small tyrannies. Tyrannies can remain intact only if unchallenged. Like Achilles, each has its vulnerable spot.

The AMA is by no means intimidated. Nor is your State Association. These are your chief safeguards.

The coming year will see some efforts aimed at strengthening these safeguards.

Stephen D. Ward, M.D.

STEPHEN D. WARD, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

**YOUR SERVANT**

Earlier this year, Richard E. Flood, M. D., of Weirton completed a 16-month term as the 64th President of the Federation of State Medical Boards of the United States, Inc. He now is continuing his Federation activity as Immediate Past President.

In addressing the Federation's annual meeting in Washington, D. C., Doctor Flood said he was delivering the report "of perhaps the biggest President the Federation has ever had, whose single term of office also was the longest."

He left office with several hopes. "It is my aim and desire," he said, "to see one licensing procedure, FLEX I-FLEX II, as the only licensing mechanism in North America. After that, we may consider it for international licensure . . . We need this form of licensure. Let's get it into effect as soon as possible and have it 'snowball' faster than FLEX, as we know it today, did!"

"Consumers should push this method quite favorably and quite hard," Doctor Flood added. "It is a better way of guaranteeing good care of people while the licensee is in training and assuring competence when his licensing is completed."

His year of top-level Federation service actually was just another rung in a ladder of activity that has kept Dick Flood busy on behalf of his patients and his profession for many years.

A Past President of the West Virginia State Medical Association; Chairman and active member of many of its committees; member of the Medical Licensing Board of West Virginia; Delegate to the American Medical Association; long-time member of the National Joint Practice Commission; and one with a deep devotion to family and friends. That, and more, characterizes Doctor Flood.

In typical, low-key fashion, he closed his report to the Federation at the Washington meeting by saying, "I want to thank you all for allowing me to be your President these past 16 months."

The Federation, and many other groups and individuals, owe Dick Flood a sincere vote of thanks, too.

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**AMA-ERF ASKS YOUR SUPPORT**

Medical-student loans guaranteed by the American Medical Association Education and Research Foundation (AMA-ERF) are important in themselves — and also for a reason that goes beyond money.

This reason is that they demonstrate—in clear, bottom-line terms—that our AMA federation is interested in nurturing tomorrow's physicians.

Since the program's inception in 1962, some 75,000 loans totaling over $90 million have been guaranteed.

Lately, however, the program's resources have been severely pinched. The demand for loans has been mounting—to a great extent because federal and other sources of financial assistance for medical education have been drying up while the educational expenses continue to escalate.

Last year, more than 4,000 students and physicians-in-training borrowed through the ERF program. This year, there can be no more than 2,000.

It would be a sad day indeed if the program were to languish for lack of sufficient resources to meet the loan demand. In the words of AMA Executive Vice President James H. Sammons, M. D.: "The program of aid dramatically affirms medicine's confidence in, and unselfish support for, the future of health care in America. The physician contributors and their spouses of the Auxiliary, whose dedicated efforts and generous gifts over the years have provided the resources and energy that make the program live, merit special recognition."

Just a little extra effort from medical families, and from all of the state and county societies, would do much to proclaim that confidence in health care's future.

Let's all make that little extra effort.

As a Presidential non-hopeful, comedian Pat Paulsen vowed that he could lick inflation—and would spend "any amount of money it takes."

**USE MONEY TO SAVE MONEY?**

In a far grimmer vein, we similarly could ask: How much of the people's money would the Federal Government spend to save them money on hospital bills? To what degree would the cost of implementing the Administration's hospital cost-containment proposal offset any savings that might result?

Those are questions that members of Congress (and their constituents) should wonder about as that piece of legislation locomotes toward possible enactment, as a sword of Damocles over our Voluntary Effort.

The measure at this stage is too amorphous to allow an estimate of its implementive cost. Also, HEW has been inclined to minimize the red-tape threat, asserting that just one additional line in a present form would suffice.

However, as the American Hospital Association notes, (1) it would take at least a year to promulgate regulations occasioned by the bill—and time is money; (2) a sophisticated staff would be needed to process exemptions requested under the bill; and (3) such a staff would also be needed to compute hospital spending in the nation at large, in each non-exempt state, and in hospitals therein.

We can adapt to this situation a statement by former Attorney General Griffin Bell: "Each incremental cost added to a product or service by a new and and perhaps unnecessary regulation further erodes the buying power of the American dollar."

According to AMA testimony in Congress, the regulatory process already "has added tens of billions of dollars to the cost of medical care" and "may lead to the rationing of health care."

At hearings on the Administration's hospital cost-containment bill, Senator Edward Kennedy remarked: "A cost control program is needed—a program that is administratively simple, doesn't create a new bureaucracy, and will result in significant savings."

We rightfully could apply those words to the Voluntary Effort, spearheaded by the AMA, the AHA, and the Federation of American Hospitals in a coalition with insurers, consumers, manufacturers, business, labor, and local government.

**A COMMITMENT**

Governor John D. Rockefeller IV has assured West Virginians that medical services to those served by the Department of Welfare's big program will be maintained at current levels. That is a most heartening promise, and one which will require many hard new dollars to keep.

Readers of *The Medical Journal* are well aware of the financial troubles experienced by the welfare agency's medical services program. Simply stated, the agency ran out of money more than a month before the 1978-79 fiscal year ended June 30—and the current appropriation for the 1979-80 year again is woefully short.

The Governor has said that there can be no reduction in services because nothing less than adequate health care for those who need it can be permitted. He will propose a supplemental appropriation for this fiscal year when the Legislature reconvenes in January, and an increased appropriation for 1980-81. We applaud this commitment. We trust it will get responsive treatment by the Legislature.

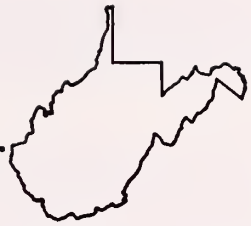
How the Department of Welfare ended up in impossible circumstances perhaps now is largely academic, but there are some lessons to be learned. Some Rockefeller Administration officials didn't listen closely enough, it appears, to certain information provided them. Some costs were underestimated, particularly in the area of nursing home care where substantial numbers of additional beds are becoming available.

Figures we're now seeing in retrospect might indicate further trouble, and make it difficult for the Governor and the Legislature to meet the new commitment. We've heard that the medical services budget was about $8 million short in state funds in 1978-79—and might be $6 to $8 million short for the current fiscal year.

Other data, however, indicates the budget shortage for last year was $12 million just for services provided in acute care hospitals. What welfare agency liabilities were to physicians, nursing homes, pharmacies, etc., isn't known here.

Any way you cut the pie, however, there are still very difficult hurdles ahead if the Administration and Legislature manage to fund the programs and services they have set up, and held out to the people. We hope those hurdles can be cleared. To repeat what we've said before, there's no room in West Virginia for different levels of health care.

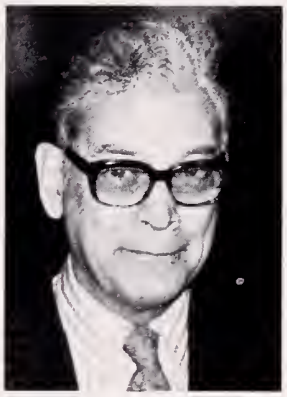
# GENERAL NEWS



## Mid-Winter Program To Offer Wide Range of Topics

Subjects ranging from meningitis and hepatitis to non-invasive techniques will be offered during the 13th Mid-Winter Clinical Conference set for next January 25-27 at the Holiday Inn Charleston House, in Charleston.

Joseph T. Skaggs, M. D.



Ralph H. Nestmann, M. D.

The Program Committee, again headed by Drs. Joseph T. Skaggs and Ralph H. Nestmann, both of Charleston, will be providing more details as to specific subjects and speakers in the next few weeks, and they will be offered by *The Journal* as they are finalized.

The Conference, which has become one of the major continuing medical education experiences for those physicians in practice around West Virginia, again will be sponsored by the West Virginia State Medical Association and Schools of Medicine at West Virginia and Marshall Universities.

Presentations on meningitis, Reye's Disease and hepatitis will highlight the first scientific session on Friday afternoon, January 25. Friday evening again will feature an educational and informational session for the general public; and a program for physicians.

The public session, featuring three well-known speakers, will deal with drug abuse, smoking and alcoholism. Elective workshops in cardio-pulmonary resuscitation will be arranged for physicians, with perhaps also another meeting topic.

Friday night's public-session speakers will offer scientific papers in the area of drug abuse, smoking and alcohol for physicians on the Saturday morning, January 26, program. Saturday afternoon will bring a new Conference feature—some give-and-take exchanges in the area of some current medical controversies.

Non-invasive techniques, including ultrasound, will be discussed on Sunday morning, January 27, before the Conference is adjourned about noon to enable participants time to return to their homes.

Program planning again will include provisions for pre-registration, and assistance in obtaining hotel and motel accommodations. These, again, represent details to be outlined in later material.

## Compensation Board Members Named By Governor

Appointments by Governor John D. Rockefeller IV have activated a new Advisory Board to the West Virginia Workmen's Compensation Commissioner established by a 1979 legislative enactment.

The Compensation Commissioner, George D. Blizzard II, will serve as an ex officio member of the 10-member Board, and as its Chairman. The other nine members, representing employers, employees and providers of medical services, will select one of their number to serve as Vice Chairman.

The Board, to meet at the call of the Commissioner or whenever a majority of its members might request a meeting, will have as its initial medical provider members Dr. Robert L. Ghiz, Charleston orthopedist and Chairman of the State Medical Association's Committee on Medical Economics; Dr. Donald L. Rasmussen, Beckley internist; and Robert L. Harman, Administrator of Grant Memorial Hospital in Petersburg and current Chairman of the West Virginia Hospital Association Board.

The new statute stipulates that the Board will advise the Compensation Commissioner on matters pertinent to the administration of the Com-

pensation Fund. It shall consider any matter brought before it by the Commissioner or any appointed member; and may consider any matter referred to it by a person not a member of the Board.

The State Medical Association strongly supported legislation establishing the board, as did various manufacturing, business and other organizations. The initial appointees will serve overlapping three-year terms, but details as to the exact periods of appointment for individual Board members were not available at this writing.

## Laetrile Found Useless, Fatally Dangerous

Laetrile not only does not cure cancer, it also can kill the user.

These were the findings of a scientific research study of laetrile made at Evanston (Illinois) Hospital and Northwestern University Medical School, Chicago.

Janardan D. Khandekar, M. D., conducted laboratory research study in which groups of rats were fed laetrile, also known as amygdalin, to determine whether the substance would affect the tumors with which the animals had been infected.

In amygdalin-treated rats, there was a progressive *increase* in size of the tumors. And in the three study groups, death rate from cyanide poisoning was 30.8 per cent, 44.1 per cent, and 56.8 per cent, Doctor Khandekar said.

Doctor Khandekar points out that several states, in response to vigorous lobbying efforts, have legalized use of laetrile. The U. S. Supreme Court recently, in effect, refused to legalize the substance on a national level, and relatively little is available in the United States. Many cancer sufferers have gone to clinics in Mexico for laetrile treatment.

The protagonists of amygdalin use have claimed that the substance is "innocuous," and therefore, patients with "terminal" cancer should not be deprived of its use. The Evanston studies show that the substance is by no means innocuous, that it can kill. Laetrile is made from the pits of apricots and other such fruit. These pits are known to contain cyanide. A number of cases of deaths from cyanide poisoning from accidental overdose of laetrile have been reported.

"These findings seriously question the use of amygdalin in clinical medicine under any circumstances," Doctor Khandekar concludes.

# *Review A Book*

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Principles of Clinical Electrocardiography, 10th Edition,* by Mervin J. Goldman, M. D. 415 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Annual Review of Neuroscience, Volume 2,* W. Maxwell Cowan, Editor, and Zach W. Hall and Eric R. Kandel, Associate Editors. 555 pages. Annual Reviews, Inc., 4139 El Camino Way, Palo Alto, California 94306. 1979.

*Clinical Cardiology, 2nd Edition,* Maurice Sokolow, M. D., and Malcolm B. McIlroy, M. D. Price $17.50. Lange Medical Publications, Los Altos, California 94022. 1979.

*Correlative Neuroanatomy & Functional Neurology, 17th Edition,* by Joseph G. Chusid, M. D. 464 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Growth Standards in Children,* by Herbert H. Pomerance, M. D., with a contribution by John M. Krall, Ph. D. 225 pages. Price $25. Harper & Row, Publishers, Inc., P. O. Box 7777 — RO200, Philadelphia, Pennsylvania 19175. 1979.

*Review of Medical Physiology, 9th Edition,* by W. F. Ganong, M. D. 618 pages. Price $14. Lange Medical Publications, Los Altos, California 94022.

## Family Physicians To Hold Atlanta Meeting

One of the country's largest continuing medical education forums will be staged October 8-11 in Atlanta's Georgia World Congress Center.

The conclave is the 31st Annual Scientific Assembly of the American Academy of Family Physicians (AAFP).

This year's theme, "A Special Decade, 1969-1979," notes the 10 years family practice has been a recognized medical specialty.

An advocate of continuing medical education, the Academy requires its members to earn 150

hours of approved CME credit every three years. Thirty of these hours can be accrued by participating in the various modalities of the Assembly.

A new addition to the scientific program this year, "Symposia on Practical Diagnosis of the Cardiac Patient," makes a total of 10 diverse elements offered to participants.

AAFP Delegates from the West Virginia Chapter are Drs. Joseph A. Smith of Dunbar and Del Roy R. Davis of Kingwood, with Drs. Richard E. Flood of Weirton and L. Dale Simmons of Clarksburg serving as Alternate Delegates.

They will participate in the Congress of Delegates, governing body of the 44,000-member Academy which will convene October 6-8, prior to the scientific sessions.

## Center Polling Physicians For Insurance Study

The National Opinion Research Center (NORC) of the University of Chicago is conducting research among a scientifically-selected national sample of physicians in 18 medical specialties.

The research is aimed at bringing about better health insurance reimbursements in the face of inflationary practice costs.

The Medical Practice Expenditure Study, now in its third year, focuses attention on staffing and overhead costs, physician hours spent in administrative activities, and current reimbursement received according to the physician's fees for certain procedures.

The study has been endorsed by the American Academy of Pediatrics, and NORC expects further specialty endorsements.

Researchers believe this data will prove more informative than other studies because it is more comprehensive. Furthermore, no matter how valid or reliable the data gathered by interested groups, even physicians' own professional organizations, it tends to be perceived as biased by those who effect national policy and influence public opinion. Therefore, a disinterested organization, NORC, known for its work in social science data collection, is conducting this project.

Confidentiality assurances are given in writing, and physicians may be called by a NORC field representative for a brief telephone interview.

# Medico-Legal

*Editor's Note:*

*The following material was prepared by Richard D. Lindsay, M. D., J. D., a 1974 graduate of West Virginia University School of Medicine and a 1978 graduate of the West Virginia University School of Law. He is a member of the American College of Emergency Physicians, West Virginia State Medical Association, and the West Virginia State Bar Association. He currently is practicing law and emergency medicine in Charleston.*

## Defensive Medicine

The rising cost of health care generally has led to accusations by the public, insurance carriers and the Federal Government that physicians are too wasteful of the monies earmarked for health care. Specifically, one complaint being heard more frequently than in the past is that physicians tend to practice "defensive medicine" and thus are ordering and requiring tests and procedures which would not be necessary if a doctor relied upon his own training and skills.

This tactic of "defensive medicine," no doubt practiced by many physicians, has become a subject of much controversy. The public feels that it should not have to bear the burden of a physician's attempts to limit his potential liability. Many doctors feel that they and others should depend upon the skills and clinical acumen which they have acquired during their past education, training, and experience. "Clinical judgment," we have all heard through our years of education, should never be replaced by a reliance on testing procedures.

There are other physicians who rely to a much greater extent on chemical, radiological, and other testing procedures. To these physicians, clinical judgment is necessary, but only to fill a gap for which curently no test or procedure has been developed. Classically, this type of practice in medicine is not what most teachers of physicians would feel exemplifies the "art of medicine."

As would be expected, most doctors fall in between the two extremes mentioned above. The degree or extent to which they lean toward one extreme or the other varies with the individual case with which they are presented. Unfortunate-

ly, for those of us who take great pride in the development of medical history-taking, clinical judgment and diagnosis, it appears that the doctor who practices defensive medicine with all its very expensive, difficult and time-consuming aspects most likely would be in a position to limit his liability. The public might condemn such defensive tactics, but the necessity for them has become prominent in the current atmosphere of litigation.

### Potential For Liability

When the standard of medical care requires a physician to use a particular diagnostic tool or test, or to institute a certain treatment, and that physician fails to do so, he creates for himself potential medical-legal liability. Physicians should not be fooled or misled by the fact that a doctor might try to state that the "standard of care" would only require him to do what he has been doing, and what other physicians in this community have been doing for years. In the past, reliance on such community or local practices would have protected the physician. Now, however, the standard of care is becoming a nationwide standard so that such reliance most likely would be insufficient as a defense.

The physician must utilize those diagnostic tools and treatments which are available to him. Failure to do so with the subsequent development of a bad result or incorrect or delayed diagnosis with later harming of the patient can lead to successful litigation on behalf of the plaintiff.

The legal standard appears to be that the test must be done if it presents any substantial possibility of success, or of giving information to the physician which is necessary to his diagnosis. The physician will not be heard to say that he felt that he did not undertake such tests or treatment because he was unsure if it would add to his diagnosis or care. The standard the court will go by is that of expert testimony on behalf of the plaintiff that the use of the tests or treatment in question presented a substantial possibility of success. "Substantial possibility" is not a high standard—in court it is sometimes possible to get the defendants to admit that an omitted test or procedure presented a substantial possibility of success.

It is of interest to note that the plaintiff probably does not need to prove with certainty that the injury would not have occurred after proper treatment. The omission of what would be considered a standard test of treatment creates a burden for the defendant even in cases in which there is a question of whether the end result might or might not have changed as the test or treatment were prescribed.

### Summary

Physicians must practice defensive medicine in order to limit their liability. Failing to initiate studies, treatment or procedures which are available might leave a physician open for litigation should his original diagnosis of treatment be incorrect and leave the patient with a bad result.

**A day-by-day review, in breakfast and other meetings, of what's developing in reference committees and on the House of Delegates floor is a routine assignment for the West Virginia State Medical Association's delegation to annual and interim American Medical Association meetings. In the photo at left, Robert D. Hess, M. D., (left) of Clarksburg, then the Association's President, and Harry S. Weeks, Jr., M. D., Wheeling, an Alternate Delegate to the House, check a resolution under consideration during the AMA House's July meeting in Chicago. In the right photo, C. A. (Carl) Hoffman, M. D., Past AMA President from Huntington; Jack Leckie, M. D., Alternate Delegate, also from Huntington, and Frank J. Holroyd, M. D., Princeton, senior Delegate in the AMA House in years of service, listen as another delegation member (not pictured) reviews action by one of the reference committees on pending resolutions.**

## Robert F. Bible Joins Association Staff

Robert F. Bible, 31-year-old Brooke County native and attorney with other academic degrees in political science and business administration, joined the West Virginia State Medical Association staff in Charleston, August 1, Robert D. Hess, M. D., the Association's President, has announced.

Robert F. Bible

Mr. Bible will assume a variety of administrative and other duties with the title of Staff Counsel. His appointment followed affirmative action by the Association's Executive Committee, and was in line with Committee and Council approval for additional staff provided in early 1978.

A native of Beech Bottom, Mr. Bible received a B. A. degree from Marshall University in 1970, with a major in political science and minors in economics and speech. He was an officer of Scabbard and Blade, National Military Honorary, at Marshall.

From 1970 to 1975, Mr. Bible was in U. S. Army service, attending various service schools (he was an honor graduate of the Defense Information School), and putting in a tour of duty which included a substantial period of time in Germany.

He was a platoon leader, as a second lieutenant, in an armor unit; an assistant staff officer at division level as a first lieutenant, and served as primary staff officer in a community command of 2,500.

As Assistant Information Officer of the Eighth Information Division, he coordinated a division-wide German-American relations program. Mr. Bible was released to inactive duty with the rank of captain.

In 1974, Mr. Bible received a master's degree from Boston University's College of Business Administration in Boston, with concentration in management of the international economy.

He then received a J. D. degree in 1978 from the College of Law at West Virginia University, where his honors and recognition included receipt of a Robert T. Donley Memorial Scholarship.

For approximately a year prior to August 1, Mr. Bible was employed with a Charleston law firm with an opportunity for a wide range of experience that included opportunities to practice in local, state and federal court atmospheres.

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## Sports Medicine Meet To Focus On Primary Care Doctors

"Sports Medicine for the Primary Care Physician" will be the theme of the 21st American Medical Association Conference on the Medical Aspects of Sports to be held next January 12 at San Antonio.

Sports medicine experts from across the nation will discuss such topics as women in sports, the physical examination for the young athlete, heart evaluation of the young athlete, elbow injuries in young ball players, knee injuries, back injuries, injuries to the hand, the role of radiology and nuclear medicine in evaluating athletic injuries, and prevention of injuries and violence in sports.

The keynote luncheon speaker for the conference will be Kenneth H. Cooper, M. D., Executive Director of the Aerobics Center, The Cooper Clinic, Dallas. Doctor Cooper is a national authority on exercise and physical conditioning.

Program participants will include Leatha Y. Hunter, M. D., orthopedic surgeon, University of Michigan, Ann Arbor; Donald L. Cooper, M. D., team physician, Oklahoma State University, Stillwater; William B. Strong, M. D., pediatric cardiologist, Medical College of Georgia, Augusta; Kay E. Wilkins, M. D., orthopedic surgeon, University of Texas Medical School, San Antonio;

Bernard R. Cahill, M. D., orthopedic surgeon, Peoria, Illinois; Arvo Neidre, M. D., orthopedist, University of Texas Medical School, San Antonio; Jerry D. Julivan, M. D., orthopedic surgeon for the athletic department of the University of Texas, Austin; Frank C. McCue, M. D., orthopedist and rehabilitation specialist, University of Virginia Medical Center, Charlottesville; Jack W. Bowerman, M. D., radiologist, of Johns Hopkins School of Medicine, Baltimore; Joseph S. Torg, M. D., Director of the Sports Medicine Center, University of Pennsylvania, Philadelphia, and S. Harvard Kaufman, M. D., psychiatrist, Seattle.

## Family Practice Conference September 20-21

Physicians from five states will serve as members of the guest faculty for the Fifth Annual Hal Wanger Family Practice Conference to be held September 20-21 in Morgantown.

The meeting will begin with registration at 8 A. M. Thursday, September 20, in the West Virginia University Medical Center Auditorium. Sponsors are the WVU School of Medicine's Department of Family Practice and Office of Continuing Medical Education, and the West Virginia Chapter of the American Academy of Family Physicians.

The speakers and topics on Thursday will include "Hematuria, Obvious or Ominous"—Stanley J. Kandzari, M. D., WVU Professor of Urology; "Evaluation of Cerebral Vascular Insufficiency"—Ronald A. Savrin, M. D., WVU Assistant Professor of Surgery; "Pain and Trigger Points"—Robert Bettinger, M. D., WVU Assistant Professor of Anesthesiology; "Management of Ketoacidosis in Children"—William G. Klingberg, M. D., WVU Professor and Chairman of Pediatrics;

"Treatment of Degenerative Joint Disease"—Eric L. Radin, M. D., WVU Chairman, Department of Orthopedic Surgery; "Managing Recurrent G. U. Infections"—Burke A. Cunha, M. D., Connecticut University School of Medicine; "Allergic Emergencies"—Gilbert A. Friday, M. D., Pediatric Allergist, Pittsburgh, and "Selecting Patients for Stress Testing"—Warren T. Anderson, M. D., Morgantown, WVU Clinical Assistant Professor of Medicine.

### Friday Program

The Friday program will be:

"Pulmonary Emboli: Over-Diagnosis/Missed Diagnosis"—Edwin J. Morgan, M. D., WVU Professor of Medicine and Medical Director, University Health Service; "Psycho-therapeutics in Ambulatory Patients"—Roy G. Carter, M. D., Chairman, Department of Orthopedics, Georgia Baptist Hospital; "Post-Op Care of Surgical Feeding Tubes"—Philip M. Sprinkle, M. D., WVU Professor of Surgery and Chairman of Otolaryngology;

"Management of Upper GI Bleeding"—Daniel H. Gregory, M. D., Division of Gastroenterology, Allegheny General Hospital, Pittsburgh; "Hypertension Update"—R. Patterson Russell, M. D., Associate Professor of Medicine, Johns Hopkins University, and Chief, Hypertension Service, Good Samaritan Hospital, Baltimore, and "Rational Use of Oral Contraceptives"—Roland J. Weisser, Jr., M. D., WVU Associate Professor, Department of Family Practice, and C. Wayne Weart, Pharm. D., Associate Professor and Director, Pharmacy Education in Family Practice, Medical University of South Carolina.

The program meets the criteria for 14 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association; is acceptable for 14 prescribed hours by the American Academy of Family Physicians, and is approved for 1.4 WVU CEUs.

In conjunction with the conference, the Board of Directors of the West Virginia Chapter, AAFP, will hold a breakfast meeting at 8 o'clock on Saturday, September 22, at the Lakeview Inn in Morgantown.

## Psychopharmacology Authority To Speak In Charleston

A conference, "Leo Hollister Speaks on Psychopharmacology," will be held Friday morning, September 21, at the West Virginia University Medical Center Education Building, Charleston Division.

Doctor Hollister is Professor of Medicine, Psychiatry and Pharmacology at Stanford University School of Medicine, and Chief of Psychopharmacology Research at the Veterans Administration Hospital in Palo Alto, California.

During the past 25 years, his major field of interest has been clinical psychopharmacology, and he is internationally recognized for his work in this area.

The program is directed to all physicians and others involved in the psychopharmacological management of patients, namely those with problems of aging and those with problems of drug dependency.

There is no fee for this program; however, preregistration is necessary with: Conference Coordinator, Charleston Division/WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304.

The conference meets the criteria for two and one-half hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association.

Sponsors are the Department of Behavioral Medicine and Psychiatry, WVU Charleston Division, and Charleston Area Medical Center.

The schedule will be: registration, 8:30 A.M.; Doctor Hollister's presentation, 9 A.M.; break,

10:30 A.M.; discussion, 10:45 A.M., and adjournment at noon.

For additional information, contact the Department of Continuing Education at WVU Charleston Division (telephone 304-345-2600, ext. 242).

## Dr. Rowland H. Burns Memorial Conferences To Begin

The first Dr. Rowland H. Burns Memorial Critical Care Conference will be held Saturday, November 17, at the Gateway Inn in Barboursville. The conference is co-sponsored by the Marshall University School of Medicine and The Huntington Internal Medicine Group, Inc.

Doctor Burns, a specialist in heart/lung diseases and general medicine, was a senior member of The Huntington Internal Medicine Group prior to his death in April, 1978.

The key speakers will be Dr. William Proudfit of the Cleveland Clinic's Cardiology Department, and Dr. Thomas L. Petty of Denver, Professor of Medicine and Head of the University of Colorado Medical Center's Pulmonary Sciences Center, according to Dr. David K. Heydinger, MU Medical School Associate Dean for Academic and Clinical Affairs.

"It is most appropriate that these two men, who knew the late Huntington physician personally and were held in high regard by him, should be the speakers to launch the first of these sessions," said Doctor Heydinger.

The conference, which is open to residents and nurses as well as practicing physicians, has been made possible by memorial gifts to the Marshall University Foundation designated for the Rowland Burns Medical Education Fund.

A graduate of the Medical College of Virginia, Doctor Burns had practiced in Huntington since 1951. He was active in the development of the MU School of Medicine and served as Chairman of its Medical Education Advisory Board.

The memorial fund, which currently totals approximately $29,000, has been invested, and the interest will be used to support annual continuing education programs on critical care, in which Doctor Burns had a special interest.

This conference will carry six hours of Category 1 continuing medical education credit, according to Dr. Charles E. Turner, a Marshall Medical School clinical faculty member and member of the Huntington Internal Medicine Group, who is directing conference arrangements.

During the morning session, following welcoming remarks and a tribute to the late Doctor Burns, Doctor Petty will discuss "Adult Respiratory Distress Syndrome State of the Art" and "Critical Care for the Obstructive Lung Diseases." Doctor Turner will be the moderator.

At the afternoon session, Doctor Proudfit will discuss "The Natural History of Coronary Artery Disease" and "Results of Coronary Artery Surgery." The afternoon session moderator will be Dr. William S. Sheils, MU Medical School Clinical faculty member and member of the Huntington Internal Medicine Group.

In addition to the main speakers, Huntington-Charleston area physicians with expertise in the topic areas also will present lectures, according to Doctor Turner.

Activities, including a tour of the Huntington Galleries, are being planned for spouses accompanying conference participants.

There will be a $60 registration fee for physicians and a $20 fee for residents and nurses.

Additional information and registration details may be obtained by writing Doctor Turner at 1115 20th Street, Huntington 25703, or Doctor Heydinger at the School of Medicine, Marshall University, Huntington 25701 (telephone 304-696-6622).

## AMA Winter Scientific Meeting Set For January In Texas

The 33rd Winter Scientific Meeting of the American Medical Association will be held January 12-15, 1980, in San Antonio.

The meeting will offer attending physicians a multi-discipline educational experience. Many major specialty societies will be involved in the design of many of the continuing medical education courses and symposia to be offered during the four-day session.

The scientific program will include 45 postgraduate courses, 20 symposia, Video Clinics, cardiopulmonary resuscitation courses, scientific exhibits, and other special programs.

Symposia topics will include social drinking and chronic alcoholism, what the doctor can do to help his patients stop smoking, international terrorism and rescue, how to cope with the im-

paired physician, drug problems in the teenager, latest findings in treatment of cancer, health effects of exposure to radiation from the viewpoint of the practicing physician, bites and stings, hypochondriacs in the health care picture, update of plastic surgery, and obesity and what can be done about it.

The courses will offer a wide variety of subject matter from which the physician can select subjects in which he feels the need of refresher training.

Participating specialty societies are American Academy of Dermatology, American Association for Thoracic Surgery, American College of Cardiology, American College of Physicians, American Society of Clinical Pathologists, American Society for Clinical Pharmacology and Therapeutics, College of American Pathologists, and the AMA Section Council on Plastic, Reconstruction and Maxillofacial surgery.

**Program Highlights**

Among the highlights of the program are:

Hypertension Update: 1980. Physicians will be briefed on the recommended approach to office treatment of the newly discovered patient with high blood pressure. With national educational efforts in the last few years aimed at finding those with high blood pressure, physicians are faced with many more cases in their day-to-day practice.

Controversies in the diagnosis and management of breast cancer. The roles of surgery, radiation treatment, and use of hormones and drugs to treat breast cancer will be evaluated in terms of new approaches in which radical surgery often is being omitted for other treatments.

Malevolent Inflictions: Bites and Stings. Early medical care is stressed in contemporary approaches to dealing with bites and stings. All sorts of bites will be included—dogs, cats, wild land animals, marine animals, reptiles, insects—even human.

Practical training for the physician in dealing with four common types of cancer. These are cancers of the breast, lung, colon and pancreas. Diagnostic techniques will be explored, and approaches aired to determine the best course of treatment.

Diabetes mellitus. The course is directed to the physician in general practice. It will stress the need for appropriate diagnosis of diabetes, and the use of diet, oral agents and insulin in treatment.

# *Medical Meetings*

Sept. 5-8—Am. Assn. of Obstetricians & Gynecologists, Hot Springs, Va.

Sept. 12-13—Conference on Aging (St. Mary's Hospital), Huntington.

Sept. 12-16—Medical and Chirurgical Faculty of the State of Maryland, New Orleans.

Sept. 14-16—AMA Regional CME Meeting, Williamsburg, Va.

Sept. 15—Symposium on Malignant Melanoma (St. Mary's Hospital), Huntington.

Sept. 15—Update on Asthma (WVU, W. Va. Chapter, Am. Lung Assn.), Morgantown.

Sept. 20—Balance Disorders (Wheeling Hospital).

Sept. 20-21—Hal Wanger Family Practice Conference, Morgantown.

Sept. 21—Leo Hollister Speaks on Psychopharmacology (WVU Charleston Division, Charleston Area Medical Center) Charleston.

Sept. 21-22—Update '79 (Wheeling Clinic), Wheeling.

Sept. 21-23—Central Assn. of Obstetricians & Gynecologists, White Sulphur Springs.

Sept. 23-25—3rd Annual Meeting, Am. Counseling Assn., Pittsburgh.

Sept. 25-27—Kentucky Medical Association, Louisville.

Oct. 4-6—Am. Neurological Assn., St. Louis.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-17—Indiana State Med. Assn., Indianapolis.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 19—WVU Cleft Palate Teaching Day, Morgantown.

Oct. 21-27—Am. College of Gastroenterol., Anaheim, Calif.

Oct. 22-26—ACS (Clinical Congress), Chicago.

Nov. 1-3—Pa. Med. Society, Camp Hill.

Nov. 1-4—Med. Society of Va., Hot Springs.

Nov. 4-7—Southern Med. Assn., Las Vegas.

Nov. 4-8—Am. College of Chest Physicians, Houston.

Nov. 5-9—Am. Academy of Ophthalmol., San Francisco.

Nov. 16-17—Med. Society of Delaware, Wilmington.

Nov. 17—Rowland H. Burns Memorial Critical Care Conference, Barboursville.

**1980**

Jan. 12—AMA Conference on Medical Aspects of Sports, San Antonio.

Jan. 12-15—AMA Winter Scientific Meeting, San Antonio.

**Jan. 25-27—13th Mid-Winter Clinical Conference, Charleston.**

April 18-20—Scientific Assembly, W. Va. Chapter, AAFP, Morgantown.

April 20-23—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

The West Virginia Medical Journal

Vol. 75, No. 10 October, 1979

# Presidential Address*

ROBERT D. HESS, M. D.
*Clarksburg, West Virginia, Immediate Past President, West Virginia State Medical Association*

During the past 12 months I have had the opportunity to travel to all areas of this state —to the coal fields of Williamson and Welch; to the steel cities of Wheeling and Weirton; to the orchards of Martinsburg and Charles Town, and to the centers of higher education in Morgantown, Charleston and Huntington.

I have talked with most of the membership of this Association, and I come back to you today to let you know that I am proud to be associated with such outstanding people. You are dedicated, concerned, hard-working individuals who are eager and willing to serve when called upon to do so.

I have continued to remind you throughout the year of the many accomplishments you have made through the years in medical education, scholarship programs, research and improvements in accessibility and quality of medical care. The main purpose of this organization is to promote the science and art of medicine and to improve the public health. All of these accomplishments are aimed at this goal.

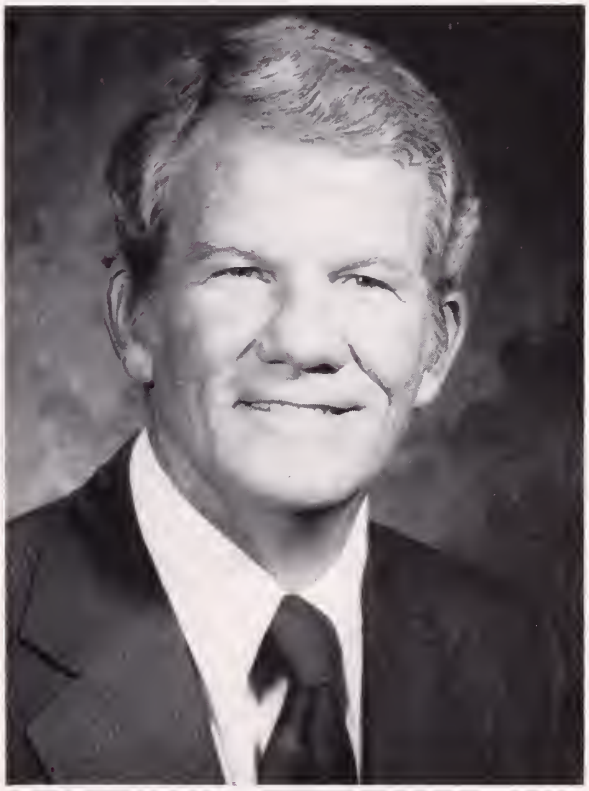
### More Challenges Ahead

I'm sure you will want to continue to support these programs as in the past. However, there are additional challenges for the future. We will continue to support the American Medical Association in its efforts to keep medicine free of federal control. We also will want to continue to be aware of the cost of medical care, and continue to support the voluntary effort to control these costs.

With the help of the Auxiliary, we will want to promote healthier life styles and health education for our children, as well as improved nutrition.

We need to continue to recruit more physicians for the whole state. Although there has been an increase of about 500 physicians over the past five years, there remains a shortage of physicians in most areas of the state.

We need to promote a program of physician rehabilitation in order to help those physicians who



Robert D. Hess, M. D.

*Presented at the second and final session of the House of Delegates, 112th Annual Meeting of the West Virginia State Medical Association, The Greenbrier, White Sulphur Springs, W. Va., Saturday, August 25, 1979.

become ill, chemically dependent or educationally deficient, so that those physicians again might function to capacity.

Again, I want to remind you that we do have a beautiful state in which to work, blessed with abundant natural resources and a population of sincere, honest people in whose health we are genuinely interested.

Thank you for this experience. Keep up the good work!

## Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 1/2 by 11 in.) white paper. Wide margins (at least 1 1/4 in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

# Reye's Syndrome

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*Reye's Syndrome is an acute and often fatal encephalopathy with fatty liver in childhood. Early vigorous treatment seems to reduce the mortality significantly. A thorough review of recent literature with emphasis on incidence, etiology, pathogenesis, clinical features, clinical course, diagnosis, and treatment is presented. In spite of voluminous literature, the etiology and pathogenesis of Reye's Syndrome still remain poorly understood. The disease offers a considerable challenge to clinicians and researchers. The present case creates an interest as it shows, in addition to fatty infiltration of the liver and cerebral edema, depletion of lymphocytes in the hilar lymph nodes and perivascular mononuclear cell cuffings in the brain of undetermined significance. These findings were not previously reported.*

REYE'S Syndrome, an acute and often fatal encephalopathy of childhood, is characterized by acute brain swelling associated with fatty infiltration and dysfunction of the liver. Brain swelling and fatty infiltration of the liver were reported as early as 1929 by Brian, *et al.*;[1] however, only in the past 15 years have the pathological and clinical features been clearly defined.[2-7] The etiology and pathogenesis of this syndrome are still unknown.

A case of Reye's Syndrome, along with a thorough review of recent literature, is presented with emphasis on incidence, etiology, pathology, pathogenesis, clinical features, clinical course, diagnosis, and treatment.

### Case Report

An 11-year-old boy was in good health until an upper respiratory tract infection developed two days prior to admission. He had persistent vomiting. History indicated no drug abuse, alcohol consumption, food poisoning, pica, head injury, or behavior problem. Past and family histories were non-contributory.

On physical examination, the patient was found stuporous and extremely dyspneic. His temperature was 103°, pulse rate 160/minute, and respiration rate 48/minute. The neurological examination was within normal limits. Serum electrolytes were within normal limits. Blood glucose was slightly elevated (147 mg./dl fasting). Other tests such as SGOT, SGPT, and blood ammonia were not performed. Also, CSF examination was not performed. Chest X-ray revealed bilateral hilar opacities. The patient died a few hours after admission.

### Autopsy Findings

*Gross*: The liver weighed 1,500 grams and was large, pale, and yellow. The brain weighed 1,500 grams and demonstrated slight flattening of the gyri which is consistent with cerebral edema. Lungs and spleen were congested. There was bilateral hilar lymphadenopathy.

*Microscopic*: The liver showed fatty metamorphosis with widespread microvesiculations of the hepatocytes (Figure 1). These fatty droplets stained positively with oil red O. There was no necrosis or fibrosis. A few inflammatory cells were seen in the periportal areas. No inclusion bodies were seen in the liver. The brain exhibited vascular congestion. No neuronal degeneration, glial nodules, or inclusion bodies were noted. Interestingly, occasional perivascular mononuclear cell cuffings were revealed in the white matter (Figure 2). Basal ganglia did not reveal any Alzheimer type II glia which may be associated with hyperammonemic syndrome. The myocardium showed focal accumulation of lipid droplets in the myocardial fibres. The kidneys did not reveal any fatty droplets in the tubular epithelial cells. The hilar lymph nodes showed widespread lympholysis with decreased cortical lymphocytes and marked vascular congestion (Figure 3). The lungs and spleen were congested. Other ogans did not show any significant pathology.

### Discussion

*Age Incidences.* Children two months to 15 years of age have been reported with Reye's Syndrome. This disease occurs sporadically in some years and as an epidemic in others. It is one of the leading causes of death in children under age six in Thailand.

*Etiology and Pathogenesis.* The etiology of Reye's Syndrome remains unknown, and the pathogenesis is poorly understood. The disease is associated with a mild prodromal illness from which the child is apparently improving. The majority of cases occur in January and February. Viruses such as influenza B, varicella, adenovirus

type 3, coxsackievirus A and B, reovirus, echovirus, herpes simplex, and parainfluenza have been implicated. In the United States, influenza B and varicella are the most frequently associated agents. The pathogenic relationship between viral infection and Reye's Syndrome is unknown. Tang *et al.*[6] observed mixed viral infections in their patients. They concluded that there may be a synergism between two different viruses which intensifies their host infectivity.

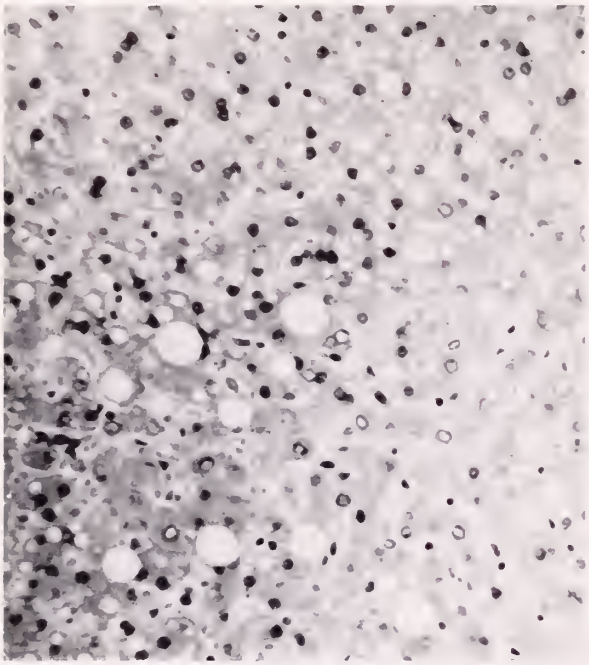

**Figure 1. Fatty metamorphosis with widespread micro-vesiculations of the hepatocytes. (H&E. x 100)**

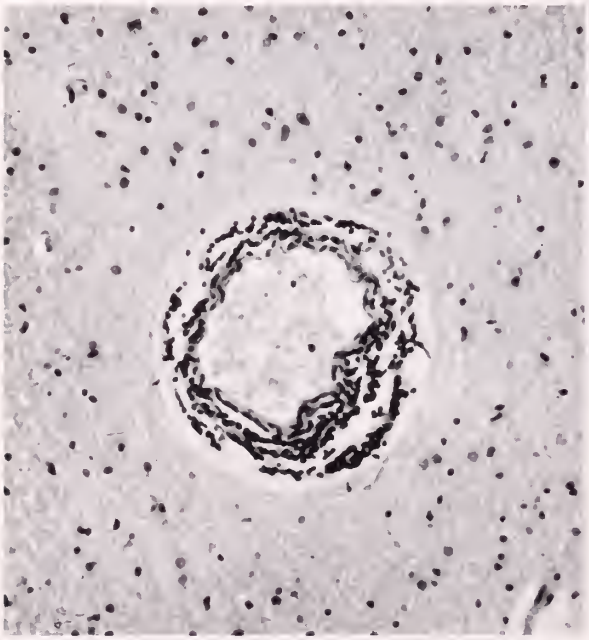

**Figure 2. Perivascular mononuclear cells cuffing in the white matter of the cerebral cortex. (H&E. x 100)**

Toxins that have been considered in the etiology include isopropyl alcohol, pteridines and salicylates, but the evidences are weak. In the present case, the postmortem blood levels of alcohol, salicylates, and other drugs were negative. Two additional toxins, aflatoxin B and mycotoxin produced by aspergillus and penicillium, are perhaps most important. In Thailand, several investigators[8,9] have postulated that aflatoxins, contaminated in foods, may be a possible etiological factor. Administration of aflatoxin $B^1$ to macaque monkeys produces clinical laboratory and histopathological features having a strong resemblance to Reye's Syndrome.[10] At one time it was thought that Reye's Syndrome and Jamaican vomiting sickness were the same. But Tanaka *et al.*[11] found that Jamaican vomiting sickness is caused by hypoglycin A from unripe ackee fruit.

The mechanism of encephalopathy in Reye's Syndrome is unknown. It is possible that the encephalopathy is secondary to metabolic effects of hepatic origin. The main hepatic injury seems to be in the mitochondria which are swollen with rarified and flocculated matrix and fragmented cristae. [12] As a result, two mitochondrial matrix enzymes, carbamyl phosphate synthetase (CPS) and ornithine transcarboxylase (OTC), have been found to be impaired in activities in liver tissue,[13] causing an increase in concentration of blood ammonia (Figure 4).

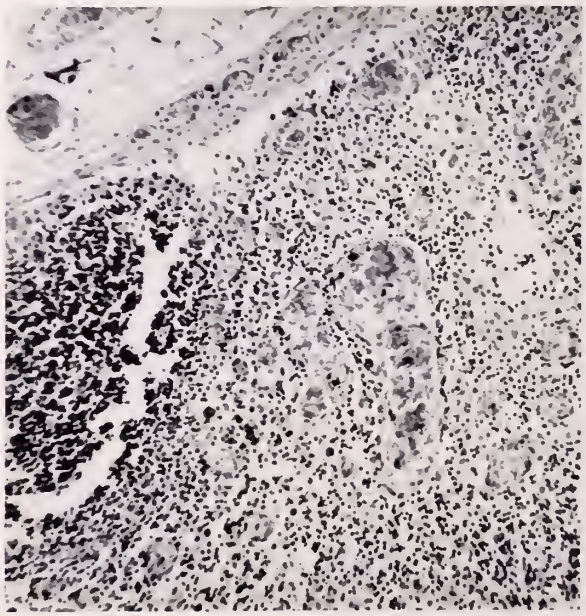

**Figure 3. Hilar (pulmonary) lymph node showing widespread lympholysis with decreased cortical lymphocytes and marked vascular congestion. (H&E. x 100)**

Blood ammonia, which easily crosses the blood-brain barrier, seems to play a major role in the development of encephalopathy with coma. Short-chain fatty acids are also implicated in the pathogenesis of encephalopathy. Accumulation of short-chain fatty acids along with ammonia may interfere with metabolic processes of the brain.[21] Zieve *et al.*[14] indicated in their experimental study in rats that mercaptans from methionine metabolism are responsible for confusion, lethargy, and coma due to their synergistic effects with ammonia or fatty acids.

*Pathology.* The liver is large, pale, and yellow. Microscopically-fatty infiltration with diffuse small vacuoles all over the hepatic parenchyma is found. Usually, there is no necrosis or inflammatory cell infiltration. No inclusion bodies are seen. The brain reveals flattening of the gyri and a tonsillar cone. Microscopically, marked cerebral edema, with or without anoxic neuronal changes and neuronal degeneration, is evident. No cellular infiltration or demyelination is perceived; however, this case shows occasional perivascular cuffings of undetermined significance, but no inclusion bodies. Fat deposition also occurs in the renal tubules, myocardium, and pancreas. The hilar lymph nodes, in this case reveal widespread lympholysis with decreased cortical lymphocytes and marked vascular congestion (Figure 3). Electron microscopic examination of liver biopsy specimens shows swollen pleomorphic mitochondria and dilated endoplasmic reticulum in hepatocytes.[12,15]

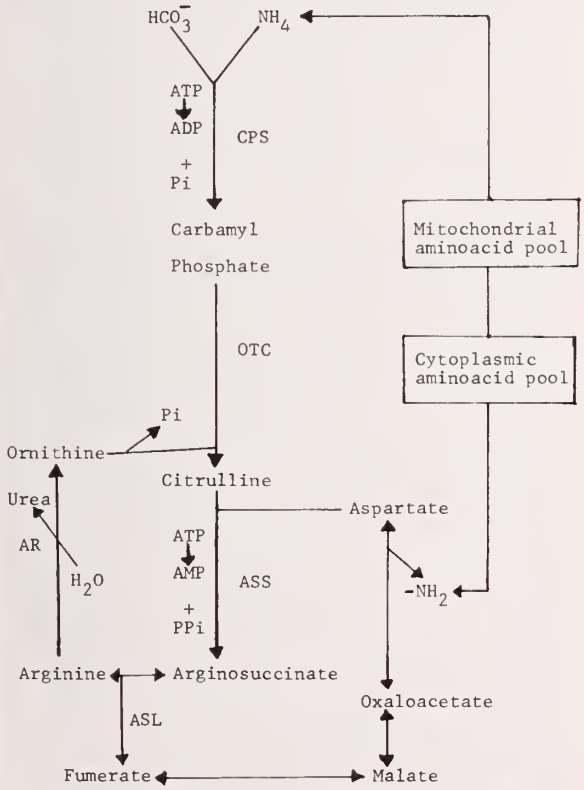


**Figure 4. Schematic representation of ammonia formation by the enzymes of urea cycle. The enzymes are carbamyl phosphate synthetase (CPS), ornithine transcarboxylase (OTS), argininosuccinic lyase (ASL), argininosuccinic synthetase (ASS), and arginase (AR).**

Also seen are the small droplets of triglycerides, numerous microbodies, many peroxisomes in hepatocytes, and virus-like particles in Kupffer cell cytoplasm.[12] EM of the brain showed accumulation of edema fluid in the oligodendrocytes, astrocytes, neurones, and myelin sheaths. Mitochondrial swelling and dilatation of endoplasmic reticulum were also noted in the neurones. Lantos *et al.*[16] reported large inclusion bodies in some neurones and vascular pericytes.

*Clinical features.* Typically, this disease starts with a prodromal upper respiratory tract infection or mild gastrointestinal upset. The child begins vomiting suddenly about six days (three to seven days) after the onset of prodromal illness. After a few hours or a day of vomiting, encephalopathy suddenly appears. Disturbances of consciousness, convulsions, coma, and often decerebrate posture, appear. Physical examination reveals a stuporous, agitated, hyperactive, comatose or convulsing child. Neurological signs are absent, and there is no evidence of meningeal irritation. Fifty per cent of cases show mild to moderate hepatomegaly. Spinal fluid cell count and protein are normal. The serum bilirubin is usually normal. Serum GOT, GPT, and blood ammonia are elevated. Serum LDH and CPK are also elevated. Isoenzyme pattern of CPK shows a large MM fraction. Plasma prothrombin time is prolonged. A low blood glucose level is common in children of less than five years of age, but is rarely found in older children. The present case showed a mild hyperglycemia. The patient frequently has respiratory alkalosis and mild metabolic acidosis.[7] Liver biopsy usually is necessary to confirm the diagnosis; however, it may be deferred until the coagulation abnormalities are corrected.[7] It is important to note that the hepatic lesion may lose its specific nature after three or four days of treatment.

*Clinical course.* The clinical course is often coma and death. In their survey, Guillete *et al.*[17] reported 80 per cent mortality. More recent reports indicate a lower mortality rate (25 to 70 per cent). Early diagnosis and vigorous treatment reduce the mortality to less than 20 per cent.[7] Mental impairment, seizures, or hemiplegia occur in some survivors. Death is probably due

to cerebral edema. Excess ammonia retention carries a bad prognosis. Tang *et al.*[6] reported that patients with blood ammonia levels greater than 300 microgram/100 ml. usually have a bad prognosis. Blood ammonia level is a more sensitive index than transaminase levels in diagnosing and prognosticating a patient with Reye's Syndrome.

*Diagnosis.* Diagnosis of Reye's Syndrome can be established with reasonable certainty on the basis of clinical manifestations. The liver may not be palpable at the beginning of the disease, but by the second or third day, it is enlarged. A liver biopsy is usually necessary to confirm the diagnosis during life.

*Treatment.* The treatment is empirical and far from satisfactory. Hypoglycemia, acidosis, and electrolyte disturbances should be corrected. Infusion of 1200 ml. per m.$^2$ per 24 hours of Ionosol MB with 15 per cent glucose is recommended.[7] In a patient with continuous nasogastric suction, half-strength saline with added potassium chloride is infused. The plasma osmolality should be maintained at about 310 milliosmoles per liter; urine specific gravity at 1.025 to 1.035; and the plasma sodium in the range of 148 to 155 mEq/liter.[7] The bleeding manifestations can be corrected by infusion of fresh frozen plasma.

Enemas, neomycin, and low protein intake as used in hepatic encephalopathy are commonly used. Dexamethasone, mannitol, and hyperventilation are used to reduce intracranial pressure but are of no proven value in this disease. Mannitol, 1.5 to 2 grams over a 15-minute period, as often as every six hours, is given.[7] Craniectomy has been used in some patients with good results.[7,18] Peritoneal dialysis, often used in the past to correct metabolic abnormalities, is now considered inferior to glucose infusion or exchange transfusion. Exchange transfusion has been considered the treatment of choice by several groups.[19,20] One and one-half to two blood volumes are exchanged, using 60 ml. plastic syringe, at eight to 12-hour intervals depending upon the clinical response and the severity of the disease. Vigorous application of this treatment can reduce the mortality significantly.

**Acknowledgement**

The authors are grateful to C. A. De La Pena, M. D., Chief of Pathology, United Hospital Center, Inc., for his encouragement in preparing this manuscript; and are also indebted to Mrs. Evelyn W. Smith for the typing of this manuscript.

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# Hairy Cell Leukemia: A Case Report

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*A case of hairy cell leukemia (HCL) in a young male patient is presented. Typical hairy leukemic lymphocytes were seen in the peripheral blood, and the bone marrow core biopsy showed the characteristic fibroblastic, fibrillar and reticular pattern. Bone marrow aspiration is "dry" in over 50 per cent of the cases. The presence of tartrate-resistant acid phosphatase cytoplasm and electron microscopic findings ascertained the diagnosis. The course was rapid with death coming six months after splenectomy. A review of the salient features and statistics of HCL is presented.*

On September 12, 1975, a 36-year-old white male was admitted to the United Hospital Center, Inc., in Clarksburg, West Virginia, because of severe pallor, petechiae, fever, and left upper quadrant abdominal pain. On the day of admission, the patient was seen in his physician's office, complaining of "bone pain" in the hips, shortness of breath, and generalized body weakness. Hematological examination of the peripheral blood showed markedly diminished platelets, a hemoglobin of 7.2 grams, 90 per cent lymphocytosis associated with atypical lymphocytes and a total white blood count of 2,500/cu mm.

On admission, physical examination revealed an acutely ill patient with marked pallor. The heart and lungs were unremarkable. There was slight muscle guarding of the abdomen and tenderness in the left upper quadrant. The spleen was slightly tender and markedly enlarged, extending down to the level of the umbilicus. The liver was not palpable. There were no neurologic deficits. The admitting diagnoses were blood dyscrasia, R/O acute leukemia, and splenomegaly with impending rupture.

Pertinent laboratory studies were almost similar to the results obtained before admission. The hematocrit was 22.7 per cent; hemoglobin, 7.3 grams; RBC, 2.5 million/cu mm. and WBC, 2,600/cu mm. The white blood cell differential studies again showed 90 per cent lymphocytes and 10 per cent polymorphonuclear neutrophilic leukocytes. There were three plus anisocytosis and hypochromia. The lymphocytes were atypical, exhibiting a dark grey cytoplasm, the cytoplasmic borders of which displayed "hairy projections" (Figure 1). The platelet count was 31,000/cu mm. and the reticulocyte, 1.2 per cent. Flat plate of the abdomen revealed an enlarged spleen with the possibility of intracapsular hemorrhage. Bone marrow aspiration was attempted over the sternum twice at the level of the second and third interspaces. An adequate sample could not be obtained and aspiration was considered "dry." However, a small amount of sinusoidal blood was obtained and it showed an abundance of atypical lymphocytes with "hairy

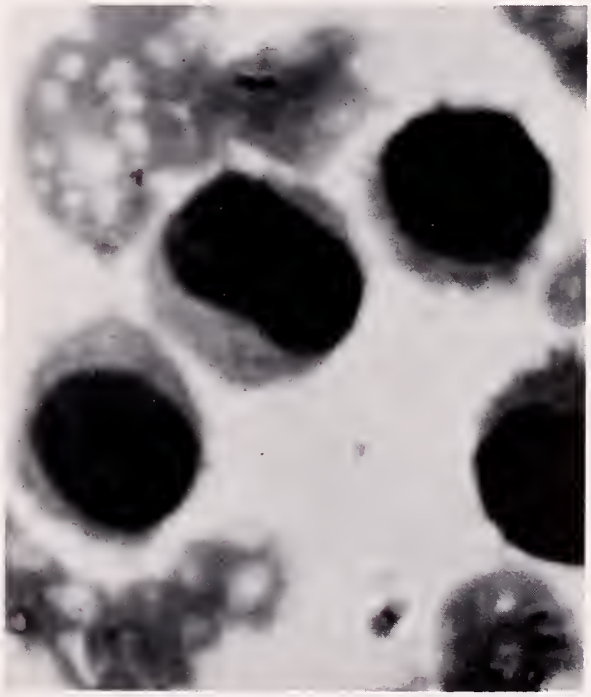

**Figure 1. Enlarged oil immersion field—abnormal lymphocytes with "exaggerated cytoplasmic projections," the so-called "hairy cell."**

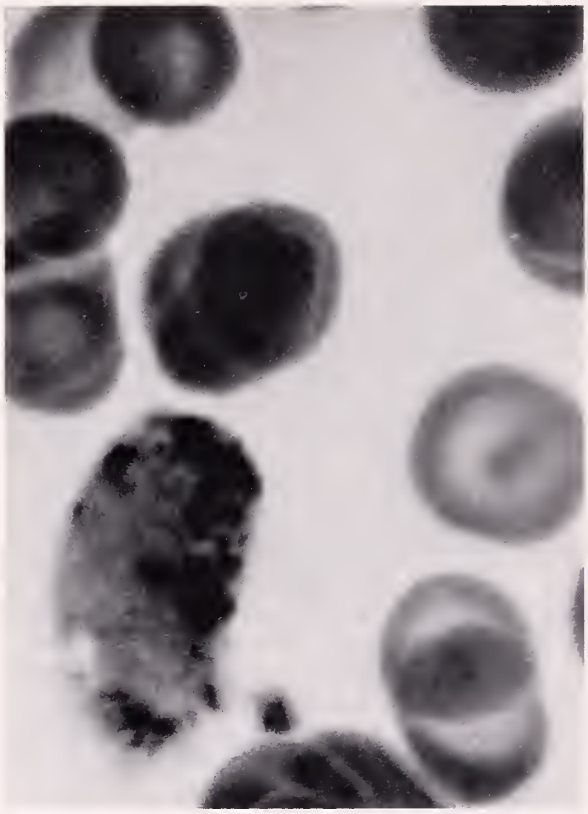

**Figure 2. Peripheral smear stained with acid phosphatase with tartrate inhibition, showed typical resistant granules in the cytoplasm.**

projections." The possibility of hairy cell leukemia was entertained.

At one and two hours following admission, follow-up studies revealed platelet counts of 27,000/cu mm. and 21,000/cu mm. Two hours following admission, the hematocrit fell to 18.2 per cent and hemoglobin to 5.8 grams. Two units of fresh whole blood were given and the patient was transferred to the University Hospital in Morgantown, West Virginia, for further hematological studies.

### Bone Marrow Core Biopsy

A bone marrow core biopsy over the iliac crest was performed. Histologic examination of the core biopsy showed a compact marrow filled with leukemic mononuclear cells in a fibroblastic-like background. Peripheral blood smears stained with acid phosphatase tartrate showed typical resistant granules in the cytoplasm (Figure 2).

On the day following admission, a splenectomy and a liver biopsy were simultaneously carried out. The spleen was massively enlarged, measuring 30.0 x 20.0 x 7.0 cm. and weighing 1220 grams. Sections of the spleen showed a diffuse infiltrate of leukemic cells in red pulp cords and sinuses. The nodal architectural pattern was completely lost. The liver sections exhibited leukemic infiltrates in the hepatic sinuses, and portal areas. These findings were considered, together with peripheral blood picture and bone marrow core biopsy, diagnostic of hairy cell leukemia. A biopsy of one of the skin petechiael lesions on the leg was likewise performed, and it showed, on microscopic examination, a leukemic infiltrate similar to that described above. Electron microscopic studies showed the pathognomonic hairy cells with characteristic assortment of organelles and hairy villi (Figures 3 and 4). Scannning electron microscopy showed typical villi and ruffles (Figure 5). Hematological response was considered sluggish and delayed following the splenectomy.

The patient was discharged on October 9, 1975, with a hemoglobin of 7.4 grams and a platelet count of 104,000/cu mm. Three weeks later, when seen as an out-patient, his WBC was 16,000/cu mm., the differential white cell studies showed 24 per cent PMC, 76 per cent lymphocytes, and two per cent stabs. Red cell morphology showed target cells, Howell-Jolly bodies and two plus anisocytosis. There were several hairy cell leukemic lymphocytes seen in the peripheral blood smears. The hemoglobin was 8.4 grams; hematocrit, 28.2 per cent; and platelet count, 258,000/cu mm.

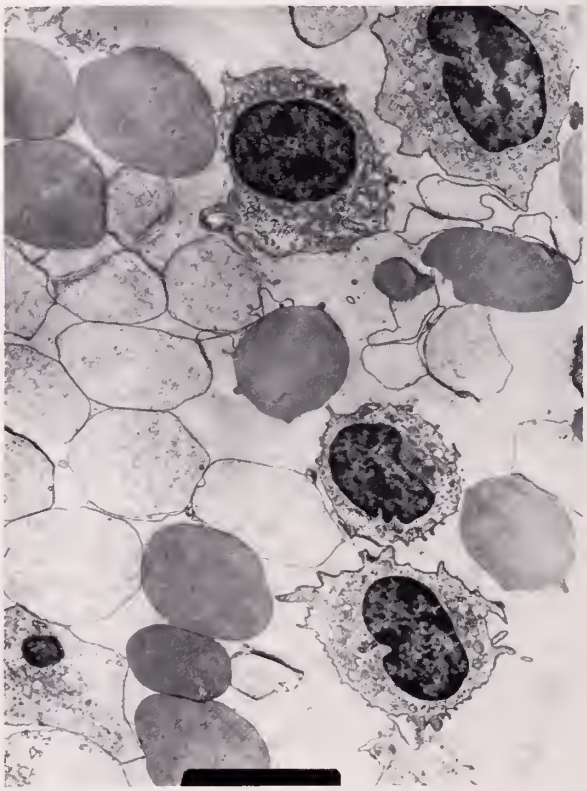

**Figure 3. Hairy cells with characteristic long, hairy villi.**

The patient had three more admissions to the University Hospital: one for an abscess of the right thigh and twice for pneumonia. Studies showed a deteriorating hematological picture having a total WBC of 28,300/cu mm. with 99 per cent lymphocytes and one per cent segmental neutrophils. The platelet count was 30,000/cu mm.; hematocrit, 29.5 per cent; and hemoglobin, 9.1 grams. X-rays of the chest showed a right lower lobe infiltrate. Physical examination revealed an enlarged and firm lymph node in the posterior right neck. The patient was started on Oxacillin (Prostaphlin) and Gentamycin (Garamycin) and switched over to Keflin and Tobramycin (Nebcin) when he developed a generalized maculopapular rash. The decision was made to start the patient on chemotherapy. The patient was started on Vincristine (Oncovin) and Prednisone. His hematological picture showed no improvement during this hospitalization. After thirteen days, the pneumonia process in the lung eventually resolved and the patient was discharged on June 6, 1976.

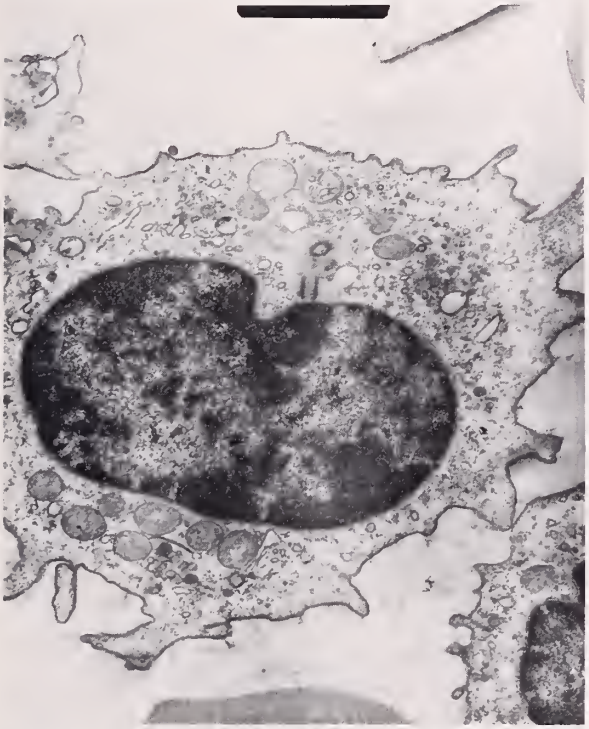

**Figure 4. Hairy cells, with long cytoplasmic villi and characteristic assortment of organelles.**

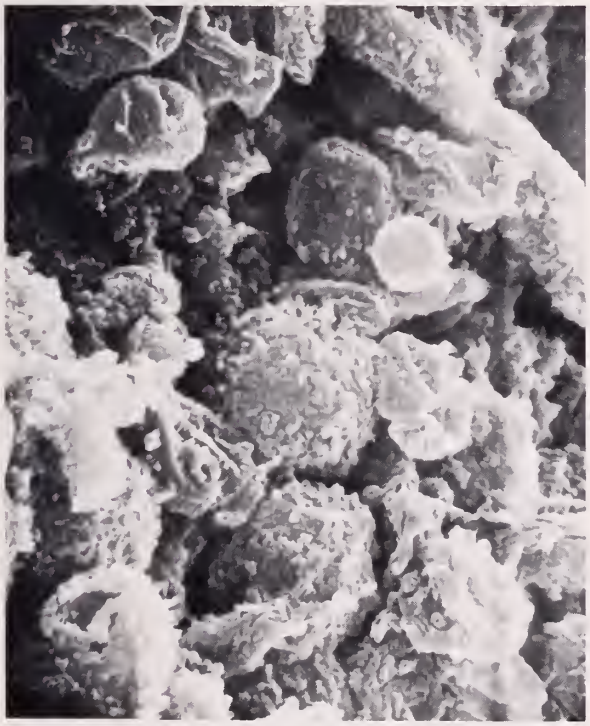

**Figure 5. Scanning electron micrograph, showing hairy cell with villi and ruffles.**

### Temperature and Agitation

He was admitted to the United Hospital Center for the last time on June 26, 1976, because of marked elevation of temperature and extreme agitation. There was again an infiltrate in the right lower lung. Laboratory studies showed evidence of acidosis, uremia, hyperurecemia and hyperglycemia. Blood culture studies showed staphylococcus aureus. He became completely anuric one hour after admission. Hematological studies showed a WBC of 44,600 per mm.$^3$, RBC of 3 million per mm.$^3$, a hemoglobin of 8.7 grams, a hematocrit of 31.5 per cent, and a platelet count of 44,500 per mm.$^3$. There was 99 per cent lymphocytosis with rare hairy cells. He was treated vigorously with Keflin, Garamycin, steroids, and intravenous fluids. Four hours after admission, he developed ventricular fibrillation and expired.

Postmortem examination showed leukemic infiltrates in the liver, in the lymph nodes, in periadrenal and peripancreatic fat and diffuse infiltration of the bone marrow. The lungs showed widespread edema and lower lobe pneumonia on the right side associated with foci of leukemic infiltration.

### Discussion

Hairy cell leukemia (HCL), otherwise known as leukemic reticuloendotheliosis (LRE), is a malignant lymphoreticular disease.[1,2] It is a progressive and proliferative disorder, considered a distinct clinical pathological entity.[3-7] The disease is characterized by marked proliferation of abnormal mononuclear cells in the spleen, bone marrow, and lymph nodes. It is associated with marked splenomegaly. Following its initial report by Ewald in 1923, many cases and a few series of cases have been reported in the litera-

ture.[2-14] At the present time, there are well over 200 cases in the literature.

The entity is so named because of the appearance in the peripheral blood of bizarre mononuclear cells which have exaggerated cytoplasmic projections. These projections resemble "hairs" or may look like pseudopods.[15] The diagnosis may be established cytochemically by the characteristic tartrate-resistant acid phosphatase cytoplasm,[16] or by the characteristic histopathologic features of the bone marrow core biopsy.[13,14] These biopsies usually show varying degrees of fibroblastic reaction and diffuse infiltration with lymphoid-reticular cells in monotonous sheets associated with an increased delicate reticulin fibrillar network.[14]

The disease is more common in males.[1,3,6] Recent studies of Golomb *et al.*[13] reveal an incidence of 29 per cent in females. It may occur between the ages of 28 to 80 with a mean of about 55 years of age.

Clinically, patients may be asymptomatic or have vague, non-specific complaints of generalized body weakness, fever, weight loss, and abdominal fullness. Practically all of the patients have splenomegaly.[3,13,14] Hepatomegaly is present in roughly 50 per cent of the cases and lymphadenopathy[18] is only present in a small number of cases.[3,14] In the series of Naeim *et al.*,[14] skin lesions were present in half of the cases.

Pancytopenia is considered characteristic of the disease.[13,18] However, review of the recently reported series of cases indicates that leukocytosis and/or thrombocytosis may be present. The amount of hairy cells may vary. In the series of Burke *et al.*,[3] hairy cells represented 10 per cent of the abnormal mononuclear cellular elements. The Golomb *et al.*[13] series reported a hairy cell population range from 10 to 50 per cent. In most reports, these cells were positive for tartrate-resistant acid phosphatase.

### Splenic Enlargement Varies

The bone marrow aspiration was "dry" in half or more of the cases reported. In these cases the bone marrow core biopsy exhibited the characteristic features described earlier. The distribution of this picture may be diffuse or patchy. The degree of splenic enlargement varied. The organ weights ranged from 400-2500 grams,[14] 350-4650 grams,[3] and 618-3780 grams[13] in three different series. Microscopically, the spleen will invariably exhibit a diffuse infiltrate of leukemic cells in the red pulp cords and engorgement of the sinuses by a uniform population of mononuclear cells showing no discernible mitoses. The liver was involved by a similar infiltrate in all cases where a biopsy specimen was available: the leukemic process was seen in the hepatic sinuses and portal areas. Lymph node involvement may be diffuse or partial: leukemic cells are seen infiltrating the subcapsular sinuses, cortex, and medullary cords.

Electron microscopic studies of hairy cells show characteristic assortment of organelles, hairy villi, and ribosome-lamella complexes.[20] Round, oval mitochondria are abundant and Golgi apparatus are well developed. Short profiles of rough endoplasmic reticulum are seen in many cells with numerous free ribosomes. A striking feature in 25 to 30 per cent of hairy cell leukemia cases is a single or multiple complex structure seen in the larger portion of the cytoplasm called ribosome-lamella complexes.[21] This finding is considered to be analogous to that between the Auers rod and myelogenous leukemia.[21] Other studies indicate that these ribosome-lamella complexes are found in 50 per cent of the cases.[22]

Findings at postmortem examination may vary. Leukemic cells are seen in liver, spleen, bone marrow, and lymph nodes. In one of Naeim and Smith's[14] cases, leukemic cells were in the peritoneum, retroperitoneum, and pericardium.

### Clinical Course

The clinical course of the disease varies. It may be acute, subacute or chronic with the latter occurring much more frequently. The report of Bouroncle, Wiseman, and Doan[2] discloses 10 to 25 patients succumbing in two years. Most of these patients had a rapid demise similar to that seen in untreated cases of acute leukemia. In Lee *et al.*[11] series, 9 of 25 patients expired in two years. Among the 49 patients in the series of Gosselin *et al.*,[9] 8 per cent had an acute clinical course and 35 to 40 per cent had a so-called subacute course. These subacute cases exhibited multiple organ involvement which eventually terminated in the acute phase. Recently, however, the series of cases reported tend to disclose a longer clinical course. The Burke, Byrne, and Rappaport series[3] reveal that 15 of 21 patients are alive and well from 4 to 119 months following the time the diagnosis was made or when splenectomy was performed. Some were alive and well 40, 50 to 96 months later. Those that died showed at autopsy other major disease entities or other complications. Besides the leukemic involvement of the lymph nodes, bone marrow, and liver, these complications consisted of metastasis with cirrhosis, uremia, septicemia and, in one case, another malignant process.

Splenectomy is the generally accepted course of treatment. A dramatic response is seen in

most patients following splenectomy. Only one third, however, will obtain long-term benefit. Following splenectomy there will usually be an increase in hematocrit, hemoglobin, WBC, and platelets. Most of the recently-published reports tend to support the concept that chemotherapy is of little benefit in the treatment of hairy cell leukemia and, in fact, may worsen the clinical picture by causing severe bone marrow suppression.[3,6,17] However, Catovsky,[1] Davis[18] *et al.* published reports of aggressive chemotherapy which provoked dramatic clinical response in patients with active hairy cell leukemia. The acuteness of the clinical course showed some relationship to chromosomal abnormalities.[13] Although further studies are needed, two of 20 patients studied in the 1978 Golomb[19] *et al.* report showed chromosomal derangements. These were found in two males, one showing 46, X, +12 and the other 46, X, +C marker. It is suggested that these patients be considered candidates for aggressive chemotherapy based on the observation that two patients mentioned above had died at five and seven months after diagnosis.


### Summary

The case presented exhibits the diagnostic hallmarks of acute hairy cell leukemia. Splenectomy was of some benefit temporarily. Secondary infection and a deteriorating hematological picture had become prominent manifestations. Six months postsplenectomy, the decision to employ chemotherapeutic agents was made. At the time the patient's disease was diagnosed, there was not yet reported a relationship of the clinical course to chromosomal abnormalities. This may have been a case where knowledge of the seriousness or acuteness of the disease as related to chromosomal abnormalities may have influenced the decision to start chemotherapeutic agents earlier in the course of the disease.



### Acknowledgment

The authors wish to acknowledge with thanks the assistance of Kay Sprouse, Secretary, United Hospital Center, in the preparation of this manuscript. Acknowledgement also is extended to Dr. Nathaniel F. Rodman, Jr., Chairman, Department of Pathology, West Virginia University School of Medicine, for his assistance in the electron microscopic studies.


*Editor's Note: Here are generic drugs and trade names (indicated by *) to which reference is made in this manuscript: Oxacillin—Prostaphlin*; Gentamycin — Garamycin*; Cephalothin—Keflin*; Tobramycin—Nebcin*; Vincristine — Oncovin*; and Deltasone, Meticorten — Prednisone*.*

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# Epidermoid Cysts Of The Testis

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*Epidermoid cysts of the testis are exceedingly rare. Two cases are presented and the literature is reviewed. In the past, the majority of these benign neoplasms have been treated by radical orchiectomy. Preoperative awareness of this entity and adherence to the principles of cancer surgery may allow simple enucleation of the epidermoid cyst and salvage of the involved testis.*

EPIDERMOID cysts of the testis are extremely uncommon, accounting for one per cent of testicular neoplasms.[1] Approximately 100 cases have been described in the literature with the majority occurring in the third decade of life.[2] These neoplasms are felt to represent a monolayer expression of a teratoma.[3] A pure, uncomplicated epidermoid cyst does not undergo malignant degeneration; therefore, it should not be surgically treated as an adult teratoma.[4]

Two patients recently were treated at the West Virginia University Medical Center for epidermoid cysts of the testis. Salvage of the testicle was accomplished in one of the patients by enucleating the benign cyst. The clinical features of this disease are discussed and a surgical approach to preserve testicular function is advocated.

### Case Reports

*Case 1.* A 21-year-old white male was evaluated for an asymptomatic left testicular mass discovered during a routine physical examination. He denied any previous knowledge of testicular swelling and had been in excellent health.

Physical examination demonstrated an ill-defined, nontender, rock-hard, four-centimeter mass in the lower portion of the left testis. There was no palpable lymphadenopathy. The remainder of the examination was normal.

Preoperative laboratory studies including hemogram, serum chemistries and electrolytes, and twenty-four-hour urine specimen for chorionic gonadotropins were within normal limits. Chest roentgenogram was negative.

Surgical exploration was performed through a left inguinal incision. Because of the suspicion of a malignant testicular neoplasm, a radical left orchiectomy was performed. Gross examination of the left testis showed the tunica albuginea to be smooth, shiny, and intact. The cut surface demonstrated two well-circumscribed cystic areas measuring 4.5x3x1 cm. and 1.5x1.5x1 cm. consisting of soft, yellowish-white, cheesy material. Microscopic sections from different areas of the cyst wall presented a uniform picture of stratified squamous epithelium with laminated keratin debris centrally (Figure 1). At the periphery of the cyst there was fibrosis, edema, and compression of seminiferous tubules. The surrounding testicular tubules, the epididymis, and vas deferens were otherwise normal. The patient is alive and well 18 months after surgery.

*Case 2.* A 20-year-old white male was evaluated for a "pea-sized" left testicular nodule that he had noticed six months prior to seeking medical attention. Although the patient was a juvenile diabetic, he had no previous history of epididymitis or urinary tract infection.

Physical examination revealed a 1.5 cm., firm discrete nodule on the anteromedial aspect of the left testicle. The right testis was normal. All laboratory data were within normal limits.

A left inguinal exploration was performed and the spermatic cord was occluded with a rubber shod clamp. After careful isolation of the testicle from the operative wound, the tunica albuginea was incised and the entire nodule was enucleated. Frozen section demonstrated a typical epidermoid cyst (Figure 2). Following closure of the tunica albuginea, the testis was pexed to the scrotal wall and returned to its normal anatomic position. The postoperative course was unre-

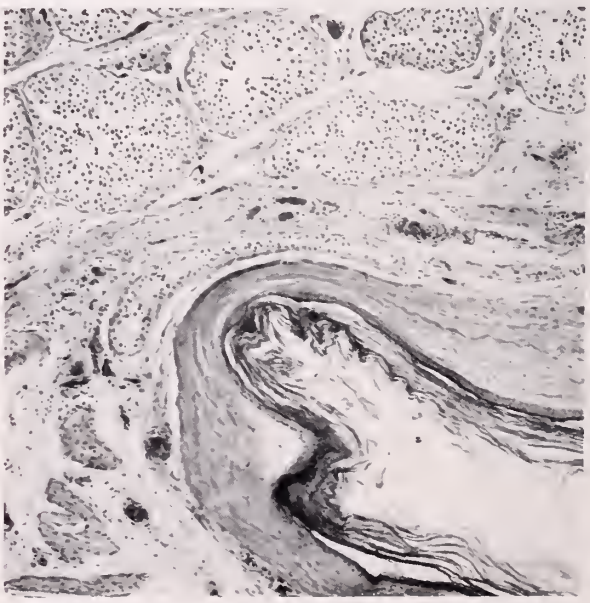

**Figure 1. Section of cyst demonstrating squamous epithelial lining with adjacent compressed seminiferous tubules.**

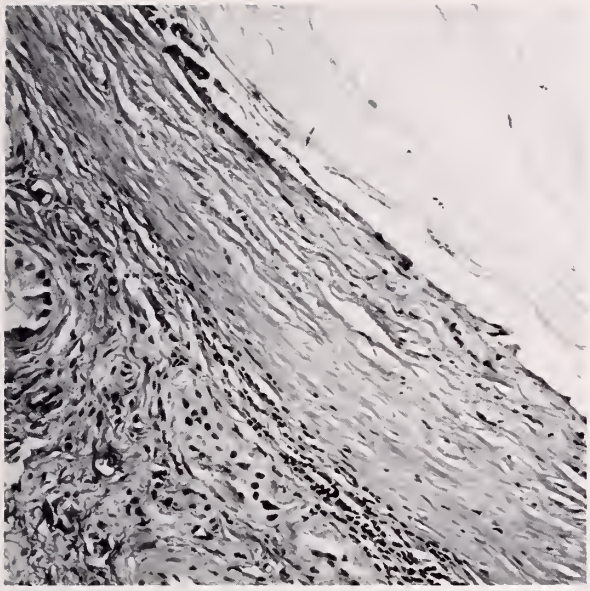

**Figure 2. Section of fibrotic enucleated cyst wall with keratin-filled lumen.**

markable and the testis appeared normal 12 months after hospital discharge.

### Discussion

An epidermoid cyst usually presents as a discrete, small, ovoid, smooth mass that is firm and slightly mobile within the testicular substance.[5] The majority are less than two cm. in diameter.[6] This lesion may occasionally be located superficially, protruding beneath the intact tunica albuginea.[7] Histologically, the cyst wall is lined by stratified squamous epithelium with the cavity containing yellowish-white, desquamated, keratinized squamous epithelium. The fibrous capsule contains hyalinized connective tissue and the surrounding testicular tubules may display compression atrophy.[4] These tumors are differentiated from teratoma by the absence of mesodermal and endodermal elements.

In a review of 100 cases, Gonzalez reported that 85 per cent of patients with epidermoid cysts were treated by radical orchiectomy.[7] There are several reasons for this seemingly aggressive management. First of all, differentiation of an epidermoid cyst from a testicular malignancy is difficult on physical examination alone. Secondly, this disease occurs predominantly in the 20 to 30-year-old age group, which is a period of life more commonly afflicted by malignant testicular tumors. Finally, because of its rarity, epidermoid cyst is not considered as the preoperative diagnosis of a testicular mass.

Epidermoid cysts often present as asymptomatic, unchanging testicular nodules which may be present for several years prior to diagnosis. Indeed, Price reported that the duration of symptoms in 69 patients ranged from two weeks to seven years with an average of 15 months.[4] When the history of an unchanging testicular mass is taken into account with the physical findings previously mentioned, epidermoid cyst of the testis must be considered in the differential diagnosis.

An alternative approach to inguinal orchiectomy should be undertaken if a benign testicular lesion is suspected. Through an inguinal incision, the spermatic cord may be occluded with a noncrushing vascular clamp. The testis can then be isolated from the wound with sterile towels and the tunica albuginea incised over the nodule. Frozen section should then be performed on the enucleated cyst. With confirmation of a benign lesion, the tunica albuginea is closed and the testis is replaced within its scrotal compartment. If the lesion is solid or if frozen section indicates the presence of endodermal, mesodermal, or malignant neoplastic elements, a radical orchiectomy should then be performed. Tumor spillage can be avoided by careful intraoperative handling and isolation of the testis.

In both of the cases presented in this report, the diagnosis of epidermoid cyst was considered preoperatively. Because of the size and the extreme firmness of the lesion in the first case, an open biopsy was not performed. In case two, the lesion was small and slightly mobile within the testicular parenchyma. Following incision of the tunica albuginea this lesion was easily enucleated. Similar to other reported cases of epidermoid cysts, both patients remain free of recurrence and of metastatic disease.

In summary, two cases of epidermoid cyst of the testis are reported. Clinical awareness of this benign tumor is necessary for proper surgical management. Enucleation of this lesion can afford the patient cure of the disease and salvage of the involved testicle.

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*A message from . . .*

*The President*

## UNION TERROR IN WETZEL COUNTY

THE Wetzel County Hospital Board of Trustees, Staff, Administration and loyal employees merit the support and commendation of everyone concerned with the care, safety and welfare of the sick everywhere. They have withstood a union-organized seige accompanied by attempts at intimidation, acts of violence and vandalism, and threats directed at themselves, their families and their property.

It would have been easy to yield. They could have temporized. They could have bought off the immediate threats, raised hospital rates and passed the costs onto the public. The price they were unwilling to pay, however, was recognition of a union which by time-honored union tactics could have jeopardized or made impossible, at any given moment, the care of the sick at that hospital for ever after.

Unions have no place anywhere in Medicine. Unions quite frankly don't give a damn about the sick. Unions are, unabashedly, selfishly oriented. If there is one admirable attribute to be noted in any union, it is its single-minded, unambiguous, unapologetic, up-front orientation toward the maximum advantage of its members. Unions have no other responsibility nor do they claim any other. The harboring of even a hint of any other responsibility would seriously weaken and impair their bargaining position. Unions make no such errors. Any union talk of concern for patient welfare in the present instance is pure cant, a tactical device to further its one all-consuming single end.

An example has been set for all of us in Medicine by these Wetzel County people of Medicine. We salute them for their courage and for their dedication to the highest principles and ideals in their care of the sick in Wetzel County.

S. Caper D. Ward, M.D.

STEPHEN D. WARD, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

We have discussed in the past various efforts aimed at imposing some method of rationing medical care.

**RATIONED MEDICAL CARE**

There is, of course, Senator Kennedy's plan which would simply budget a fixed amount of money to be spent on medical care in a defined geographic area. If all the money were to be spent prior to the next fiscal period, there presumably would be no more care dispensed until the start of that period. We have witnessed some of the problems of such a system in a minor league form here in West Virginia with the Rockefeller Administration's handling of the Welfare budget. Hopefully, we now are seeing a new concern by the administration, and a commitment to deal more effectively with this issue.

Then, there is President Carter's Hospital Cost Containment Plan which would set a top limit on the number of dollars a hospital could collect in a given year. Beyond that point, a hospital would be penalized an amount greater than the amount it might collect. Inequities such as this aside, the plan has a host of other iniquities which have bogged down its progress through the legislative tundra.

More recent proposals would yoke the patient with mandated financial co-payment burdens to the extent, it is hoped, that patients would ration themselves. Unions are likely to be unhappy with such proposals in that a cut in present benefit levels would seem to be involved.

Finally, we have HMOs. This prepaid approach to rationing of care is particularly attractive to those with political concerns because it unburdens them of any onus of rationing while it places that burden squarely on the shoulders of the doctor.

This latter approach is certainly not new to West Virginia. Mine doctors with their patient lists date almost into antiquity in our state. We have had closed panel groups providing care primarily to mine workers for a generation or two. Recently, we have witnessed the establishment of several IPA-HMOs within our borders. We welcome these.

Medicine's attitude toward HMOs has not been well understood and perhaps has not been particularly well presented. We have objected to the unfair subsidization of such plans with the use of tax money. We have also questioned merchandizing such plans as a panacea for all medical ills.

Many physicians find no problem in acting as the rationing agent in a prepaid plan; others would not think of functioning in such a role. The choice is personal. Medicine has no problem in either instance.

Rationed medical care in any guise is bargain basement medicine. It is cheap medicine. There is nothing inherently wrong or objectionable in any bargain basement, but not everyone cares to shop there. Certainly, not everyone should be made to shop there.

And just as Macy's finds that its basement adds to, rather than detracts from, its upstairs floors, so, too, Medicine expects the expansion of prepaid care plans will add completeness to the range of services it has traditionally provided.

The average American voter and medical care consumer is no fool. Anyone who assumes otherwise is a greater fool. A rationing program cannot be camouflaged with a euphemistic title. It is unlikely that frantic parents or worried spouses will salve their desires for the ultimate in care for loved ones with thoughts that the Federal Treasury or an insurance company's balance sheet will be the better for denial of these desires.

An informed consent, as inclusive and as detailed as a pre-operative consent form recommended by our legal brethren, is needed and should be supplied to the American public before it is asked to embrace any health plan involving a rationing of care. Potential enrollees in HMOs need the same.

**ACCOUNTABILITY**

An area of increasing interest, concern—and controversy—among physicians is that embraced by the broad scope of what's called accountability in medical care delivery. The following observations by Franklin C. Redmond, M. D., of San Antonio in the June issue of *Texas Medicine* accordingly are pertinent and of more than passing interest. They also are consistent with some of the thoughts expressed in recent issues of *The West Virginia Medical Journal.* Now, let's hear from Doctor Redmond:

"During the past four years, I have been involved in the growing areas of accountability in medical care delivery. Accountability involves both quality of care and utilization of facilities and services. Today, most physicians have some awareness of utilization review activities and medical care audits and analyses. Events in this area during the past four years have been confusing, and where they will lead is unclear.

"As a member of medical audit, utilization review, and quality assurance committees at The University of Texas Medical School at San Antonio, Bexar County Hospital, and Audie Murphy Veterans Administration Hospital, I struggled initially with jargon such as "audit criteria," "outcome criteria," and "level of care indicators," as well as with abbreviations and acronyms such as LOS, TARP, MCA, and PSRO. Convinced of the importance of physicians being informed, involved, and committed to trying to make these new programs work in a manner consistent with good quality, physician-directed, medical care, I began to attend workshops, read articles and editorials in the various medical newspapers and journals, and even began to read the *Federal Register* to learn about laws and regulations.

"From this perspective, there are several points I wish to offer. First, much has been written pro and con about federal regulation of medical care delivery. On that matter, I have only one observation, and it has implications for consumers as well as providers of medical care: The primary concern of federal regulatory programs is control of cost and *not* quality of care.

"Second, a great deal of energy is being expended on medical audits. Although the initial motivation was their requirement by the Joint Commission on Accreditation of Hospitals, these audits are being used to assess and improve the quality of medical care. An area of importance that has received little attention is the potential use of the data generated by medical audits to increase our knowledge of epidemiology, diagnosis, management, and health.

"Third, utilization review activities and the Texas Admissions and Review Program (TARP) also have the potential for generating data by which to further medical knowledge. The primary task for generating comparative utilization and statistical data is obvious. Less obvious is the ability to generate significant epidemiological data and a perspective on strengths and weaknesses of the medical care delivery system.

"Fourth, the TARP, though still evolving, clearly demonstrates the advantages of a review program designed and managed by physicians. It recognizes that although many, perhaps most, hospitalizations are fairly routine and can be evaluated by means of standardized criteria, a significant number of situations must be reviewed by persons medically trained and knowledgeable.

"Lastly, it seems to me that there are some in this country who, for whatever reason, want to wrest the control of medical decisions from physicians. I believe that in order to maintain and improve the overall quality of medical care in this country, physicians must continue to make these decisions. Obviously, consumers must have input; and issues of cost containment, distribution of services, and accountability are extremely important. Informed and involved physicians, however, are the only ones who can put these important factors in proper perspective with specific and individual medical decisions. A collaboration between informed, involved physicians and informed, involved patients (the real consumers) would likely improve the overall quality of medical care in this country. But both groups need to be wary of self-styled experts and control-hungry bureaucrats."

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**REDEDICATION**

This is the annual post-convention issue of *The Journal.* It therefore offers a review of action at meetings of the State Medical Association's House of Delegates, as well as other activities. The Association has new leadership again, as of August 25; and there will be a reshaping of objectives and priorities.

We suggest you read what happened at the Annual Meeting, particularly if you were not there. It's also essential, if you are to play a part in *your* Association, that you know your officers, and particularly the Councilors from your respective districts.

Nothing gets any easier these days. The two preceding editorials re-emphasize that. Physicians must get into the mainstream of daily professional and other happenings as never before. They owe that to their patients, and to the proper promotion of the public health.

# GENERAL NEWS

## Doctor Ward Assumes Presidency Of Medical Association

Dr. Stephen D. Ward of Wheeling, a psychiatrist, has assumed duties as the new President of the West Virginia State Medical Association.

Doctor Ward was installed as President by Dr. Hoyt D. Gardner of Louisville, Kentucky, President of the American Medical Association, at the concluding session of the House of Delegates during the 112th Annual Meeting Saturday, August 25, at the Greenbrier in White Sulphur Springs.

Doctor Gardner was the principal speaker during the opening House session Wednesday afternoon.

The convention began with a meeting of the Council on Wednesday, August 22. The official registration totalled 435 and included 308 physicians.

Dr. Robert D. Hess of Clarksburg, the retiring President, presided at Wednesday and Saturday sessions. He automatically became Chairman of the Council for the new Association year, succeeding Dr. Joseph A. Smith of Dunbar.

### Other New Officers

Elevated to President Elect from Vice President was Dr. L. Walter Fix of Martinsburg, who will be installed as President during the 1980 Annual Meeting, also scheduled at the Greenbrier next August 20-23. Doctor Fix is a pathologist.

Dr. John B. Markey of Charleston was elected Vice President, and Dr. Kenneth G. MacDonald, Sr., also of Charleston, was re-elected to his 15th one-year term as Treasurer. Both are surgeons.

Dr. Frank J. Holroyd of Princeton was re-elected to a two-year term as a Delegate to the AMA, with Dr. Jack Leckie of Huntington re-elected as Alternate Delegate.

Three new Council members were elected, with four other physicians re-elected to two-year terms.

The three new Councilors are Drs. Carlos L. Vasquez of Weirton, Joseph T. Skaggs of Charleston, and T. Keith Edwards of Bluefield.

Re-elected were Drs. Ralph W. Ryan of Morgantown, Dewey F. Bensenhaver of Petersburg, Mehmet V. Kalaycioglu of Shinnston, and R. Paul Bennett of Webster Springs.

Holdover Councilors whose terms will expire in 1980 are Drs. William L. Mossburg of Fairmont, Leo H. T. Bernstein of Martinsburg, Vernon E. Duckwall of Elkins, Harry Shannon of Parkersburg, Carl R. Adkins of Fayetteville, Winfield C. John of Huntington, Carl J. Roncaglione of Charleston and Arthur E. Levy of Williamson.

Under the terms of the Association's Constitution, Doctor Smith, the Council Chairman last year, becomes Councilor-At-Large for 1979-80; and Dr. John J. Mahood of Bluefield, the Associa-

**L. Walter Fix, M. D.**
**President Elect**

tion President three years removed, will serve as Junior Councilor during this period.

During the two sessions of the House of Delegates, several Constitution and By-laws amendments were adopted (see separate story about amendments elsewhere in this issue of *The Journal*), a position statement on referrals from and to licensed limited practitioners was adopted (see complete text of statement also in this issue of *The Journal*), and four resolutions were adopted (complete texts of resolutions also appear elsewhere in this issue of *The Journal*).

The amendments adopted by the House will provide for membership for medical school students in the Association, and seats in the House for Resident Physician and Medical Student Sections.

Resolution No. 1 (separate story about this resolution also appears in this issue of *The Journal*) established an ad hoc committee to start an immediate review of West Virginia's Medical Practice Act.

The other resolutions will result in such actions as:

—drafting of a proposed amendment which would mandate that the Committee on Nominations submit at least two names for each office in the Association except that of President and President Elect.

**Dr. Hoyt D. Gardner (seated, left) of Louisville, Kentucky, President of the American Medical Association, is shown with some of the new officers and councilors elected during the 112th Annual Meeting of the West Virginia State Medical Association in August at the Greenbrier in White Sulphur Springs. From left, seated, are Drs. Robert D. Hess, Clarksburg, Immediate Past President and now Chairman of the Association's Council; Stephen D. Ward, Wheeling, President; L. Walter Fix, Martinsburg, Persident Elect, and Frank J. Holroyd, Princeton, re-elected as an AMA Delegate; standing, from left, Drs. Kenneth G. MacDonald, Sr., Charleston, Treasurer; John B. Markey, Charleston, Vice President; Mehmet V. Kalaycioglu, Shinnston, re-elected Councilor; Ralph W. Ryan, Morgantown, re-elected Councilor, and Joseph T. Skaggs, Charleston, newly-elected Councilor.**

**Dr. Stephen D. Ward (left) of Wheeling assumes the office of President of the West Virginia State Medical Association at the second and final session of the Association's House of Delegates during the Association's 112th Annual Meeting in August at the Greenbrier in White Sulphur Springs. Administering the oath of office is Dr. Hoyt D. Garner of Louisville, Kentucky, President of the American Medical Association.**

—exploration of the possibilities of holding the annual meetings at a site other than the Greenbrier, with a report at the 1980 Annual Meeting.

—endorsement by the Association of a proposal to establish an endowed Chair of Nutrition in the School of Medicine at West Virginia University.

**The President**

A native of Pittsburgh, Doctor Ward received an A.B. degree from the University of Pittsburgh, where he earned three varsity letters in football, in 1950; and his M.D. degree, also from Pitt, in 1954. He served an internship at Mercy Hospital in Pittsburgh in 1954-55, and a residency at the Western Psychiatric Institute and Clinic, University of Pittsburgh, in 1955-58.

Doctor Ward was licensed to practice medicine in West Virginia in 1961, and since that time has been engaged in direct patient care at The Wheeling Clinic, in Wheeling.

He long has been active in medical affairs, both at the Ohio County and State Medical Association level. Along with service on the Association's Council and Committee on Legislation, Doctor Ward currently is a member of the board of the West Virginia Medical Political Action Committee (WESPAC).

A Past President of the Ohio County Medical Society and the West Virginia District Branch of the American Psychiatric Association, Doctor Ward currently is Chief of Psychiatry at the Ohio Valley Medical Center in Wheeling. He is a Clinical Associate Professor in the Department of Behavioral Medicine and Psychiatry at the West Virginia University Medical Center.

Doctor Ward became Chairman of the Medical Association's Publication Committee, and Editor of *The Medical Journal*, in 1976 after several years of service on the committee. On the national level, he currently is a member of the American Medical Association's Council on Legislation.

Doctor Ward saw U. S. Army service during World War II, and was awarded the Purple Heart during action in Belgium in January, 1945.

He is married to the former Mary Louise Portman of Pittsburgh. He and Mrs. Ward are the parents of a daughter, Susan; and two sons, Matthew and John.

**The President Elect**

Doctor Fix was a member of the Association's Council for four years, beginning in 1969.

A native of Buffalo, New York, he was graduated from the State University of New York at Buffalo, receiving his M. D. degree in 1943 from that institution's School of Medicine. He interned at the U. S. Naval Hospital in Brooklyn, New York, and completed a residency in pathology in 1950.

Doctor Fix also has completed graduate work in forensic pathology, ophthalmologic pathology, and tropical medicine.

**Dr. Robert D. Hess (left) of Clarksburg, chats with Dr. Robert R. Weiler of Wheeling during a reception at the recent Annual Meeting of the State Medical Association at the Greenbrier in White Sulphur Springs. Doctor Hess is Immediate Past President of the Association and Chairman of the Association's Council. Doctor Weiler is a former member of the Council.**

He is a member of the Association's Cancer, Insurance, Legislative, and 1980 Annual Meeting Program committees, the Ad Hoc Committee on Professional Liability, and Chairman of the Ad Hoc Study Committee on State Medical Association Property.

Doctor Fix became a member of the state Association in 1956.

**The Vice President**

Doctor Markey becomes Vice President after serving on the Association's Council for the past two years.

A former President of the Kanawha Medical Society, he will become Chief of Staff at Charleston Area Medical Center on January 1, 1980.

A native of Sharples, in Logan County, Doctor Markey has A. B. and B. S. degrees from West Virginia University, and his M. D. degree from the Medical College of Virginia in Richmond.

He has been an Association member since 1958, after finishing an internship and residency in 1954-58 at Charleston General Hospital.

**First House Session**

Doctor Hess presented to Dr. David Z. Morgan, Associate Dean of the West Virginia University School of Medicine, a check for $16,297.08; and to Dr. Robert W. Coon, Dean of the Marshall University School of Medicine, a check

**A new plaque, pictured above, graces the West Virginia State Medical Association headquarters. It and a $500 check representing a medical journalism award to THE WEST VIRGINIA MEDICAL JOURNAL by Sandoz Pharmaceuticals were accepted during the Association's Annual Meeting in August by Dr. Stephen D. Ward of Wheeling, Editor of THE JOURNAL. The first-prize honors were won by THE JOURNAL for state medical publications with circulation of less than 3,000 in annual competition conducted by Sandoz. The plaque reads: "Medical Journalism Award, First Prize, Presented by Sandoz Pharmaceuticals to THE WEST VIRGINIA MEDICAL JOURNAL for excellence in design and editorial content."**

for $4,062.59, during the first session of the House of Delegates on Wednesday afternoon. The checks represented an annual contribution by West Virginia physicians and the Auxiliary to the medical schools through the Education and Research Foundation of the AMA.

Mr. Kevin Devine, Regional Manager for Sandoz Pharmaceuticals in Pittsburgh, presented to Doctor Ward, as Editor of *The Journal*, the Sandoz Medical Journalism Award, consisting of a $500 check and a plaque.

*The West Virginia Medical Journal*, as announced in June, was awarded first place in competition for small state journals (with circulation under 3,000) conducted as part of Sandoz Pharmaceuticals' fourth annual medical journalism program.

#### Opening Session

Dr. Michael J. Halberstam of Washington, D. C., addressed physicians during opening exercises preceding the first general scientific session on Thursday morning. Doctor Halberstam is Editor-in-Chief of Modern Medicine.

## Standing and Special Committees Appointed By Doctor Ward

Here is a list of the standing, special and ad hoc committees which have been named by Dr. Stephen D. Ward of Wheeling, President of the West Virginia State Medical Association, to function during his one-year term of office.

#### Aging

Lee B. Todd, Quinwood, Chairman; Myer Bogarad, Weirton; Richard Hamilton, St. Marys; Sam Milchin, Bluefield, Virginia; Ralph H. Nestmann, Charleston; William J. Steger, Wheeling, and Pat A. Tuckwiller, Charleston.

#### Cancer

David B. Gray, Charleston, Chairman; Alvin L. Watne, Morgantown, Vice Chairman; John J. Battaglino, Jr., Wheeling; Walter B. Bice, Jr., Parkersburg; James P. Carey, Huntington; Cordell A. de la Pena, Clarksburg; L. Walter Fix, Martinsburg; S. William Goff, Parkersburg; Arthur E. Levy, Williamson; Catalino B. Mendoza, Jr., Clarksburg; Hu C. Myers, Philippi; Robert W. Neilson, Bluefield; Jess S. Renedo, Wheeling; John W. Trenton, Kingwood, and Carlos A. Vasquez, Wheeling.

#### Constitution and By-Laws

Robert D. Hess, Clarksburg, Chairman; Richard E. Flood, Weirton; Carl B. Hall, Charleston; J. C. Huffman, Buckhannon; Richard V. Lynch, Jr., Morgantown; John J. Mahood, Bluefield; Milton E. Nugent, Wheeling; Joseph B. Reed, Buckhannon; Joseph T. Skaggs, Charleston, and Harry S. Weeks, Jr., Wheeling.

#### Insurance

Lyle D. Vincent, Parkersburg, Chairman; William R. Barton, Wheeling; James L. Bryant, Clarksburg; John T. Chambers, Charleston; David V. Cole, Point Pleasant; R. U. Drinkard, Wheeling; L. Walter Fix, Martinsburg; H. Summers Harrison, Morgantown; James A. Heckman, Huntington; C. A. Hoffman, Huntington; Edward Jackson, St. Albans; James W. Lane, Charleston; Kenneth G. MacDonald, Sr., and A. Thomas McCoy, Charleston; Buford W. McNeer, Hinton; C. Vincent Townsend, Martinsburg, and John F. I. Zeedick, Charleston.

#### Sub-Committee on Investments and Trust

C. A. Hoffman, Chairman; A. Thomas McCoy (1980); Kenneth G. MacDonald, Sr. (1981); James L. Bryant (1982), and John T. Chambers (1983).

#### Ad Hoc Committee on Professional Liability

Jack Leckie, Huntington, Chairman; John T. Chambers, Charleston; L. Walter Fix, Martinsburg; William E. Gilmore, Parkersburg; Kenneth G. MacDonald, Sr., Charleston, and Worthy W. McKinney, Beckley.

#### Interprofessional Relations

William E. Gilmore, Parkersburg, Chairman.

#### Sub-Committees

*Medico-Legal*: John F. I. Zeedick, Charleston, Chairman; Charles W. Merritt, Beckley; John F. Otto, Huntington, and Paul H. Revercomb, Charleston.

*Medicine and Religion*: Joe N. Jarrett, Oak Hill, Chairman; Marshall J. Carper, South Charleston, and William L. Neal, Huntington.

*Medicine and Pharmacy*: L. Dale Simmons, Clarksburg, Chairman; Donald E. Cunningham, St. Albans; John L. Fullmer, Morgantown, and Donald S. Robinson, Huntington.

*Medical-Dental Liaison*: John A. B. Holt, Charleston, Chairman; Alberto G. Capinpin, Charleston; Gene Lee Hackleman, Huntington, and David A. Kappel, Wheeling.

*Nurses Liaison*: Richard E. Flood, Weirton, Chairman; Billie M. Atkinson, Parkersburg; Jean

P. Cavender, Charleston; Asel P. Hatfield, Harrisville, and Jack J. Stark, Belpre, Ohio.

**Legislative**

Frank J. Holroyd, Princeton, Chairman; W. Alva Deardorff, South Charleston, Vice Chairman; Carl R. Adkins, Fayetteville; David F. Bell, Jr., Bluefield; R. Paul Bennett, Webster Springs; A. Paul Brooks, North Parkersburg; George R. Callender, Jr., Charleston; William H. Carter, Williamson; John T. Chambers, Charleston; John S. Cook, Welch; Del Roy R. Davis, Kingwood; Vernon E. Duckwall, Elkins; Roy A. Edwards, Jr., Huntington; T. Keith Edwards, Bluefield; A. C. Esposito, Huntington; L. Walter Fix, Martinsburg; Richard E. Flood, Weirton; George Gevas, Parkersburg; Paul E. Gordon, Clarksburg; N. B. Groves, Martinsburg; Carl B. Hall, Charleston; John M. Hartman, Charleston; Robert D. Hess, Clarksburg; John A. B. Holt, Charleston; J. C. Huffman, Buckhannon; M. V. Kalaycioglu, Shinnston; Jack Leckie, Huntington; Milton J. Lilly, Jr., Charleston; A. Thomas McCoy, Charleston; Paul L. McCuskey, Parkersburg; Worthy W. McKinney, Beckley; Harvey A. Martin, White Sulphur Springs; Charles W. Merritt, Beckley; Houston B. Moore, Lewisburg; Joseph D. Romino, Fairmont; Carl J. Roncaglione, South Charleston; Harry Shannon, Parkersburg; Joseph T. Skaggs, Charleston; James T. Smith, Charleston; Pat A. Tuckwiller, Charleston; Lyle D. Vincent, Parkersburg; Harry S. Weeks, Jr., Wheeling; Robert R. Weiler, Wheeling; J. Hugh Wiley, Morgantown, and Moseley H. Winkler, Charleston.

**Maternal and Perinatal Fetal Welfare**

Samuel J. Bracken, Wheeling, Chairman; Larry D. Curnutte, Charleston; Robert D. Crooks, Parkersburg; Frederick H. Dobbs, Charleston; T. Keith Edwards, Bluefield; Fernando G. Giustini, Wheeling; W. Gene Klingberg, Morgantown; George S. Kosar, Weirton; A. Robert Marks, Clarksburg; William A. Neal, Morgantown; Thomas G. Potterfield, Charleston; Robert P. Pulliam, Beckley; Narinder N. Sehgal, Charleston; George A. Shawkey, Charleston, and Charles A. White, Morgantown.

**Sub-Committee on Perinatal Fetal Welfare**

W. Gene Klingberg, Morgantown, Chairman; Robert D. Crooks, Parkersburg; A. Robert Marks, Clarksburg; Thomas G. Potterfield, Charleston, and George A. Shawkey, Charleston.

**Medical Aspects of Sports**

K. Douglas Bowers, Jr., Morgantown, Chairman; Dewey Bensenhaver, Petersburg; Colin M. Craythorne, Huntington; Clemente Diaz, Richwood; Thomas O. Dotson, White Sulphur Springs; John P. Griffith, Jr., Wheeling; Robert E. Jones, Wheeling; James S. Kessel, Ripley; Charles A. Lefebure, Clarksburg; Tony C. Majestro, Charleston; Carl J. Roncaglione, South Charleston; George W. Rose, Clarksburg; James K. Sexton, Charleston; Clifford Sperow, Martinsburg; Robert R. Weiler, Wheeling, and Robert S. Wilson, Clarksburg.

**Medical Economics**

Robert L. Ghiz, Charleston, Chairman, and Harry S. Weeks, Jr., Wheeling, Vice Chairman.

**Sub-Committees**

*Federal Medical Activities*: W. Alva Deardorff, South Charleston, Chairman; Grover C. Hedrick, Jr., Beckley; J. L. Mangus, Charleston; Richard John Pearson, Morgantown; Harry B. Scott, Martinsburg; James F. Slaughter, Dunbar, and Philip M. Sprinkle, Morgantown.

*State Workmen's Compensation*: Carl J. Roncaglione, South Charleston, Chairman; Marshall J. Carper, South Charleston; James V. Gainer, Jr., Clarksburg; Sherman E. Hatfield, Charleston; Ralph J. Holloway, South Charleston; Lawrance S. Miller, Morgantown; Milton E. Nugent, Wheeling; Roy R. Raub, Princeton; M. D. Reiter, Wheeling, and Ralph S. Smith, Jr., Charleston.

*Blue Cross-Blue Shield Third Party*: J. D. H. Wilson, Clarksburg, Chairman; Robert W. Bess, Jr., Piedmont; Albert C. Esposito, Huntington; Ernest G. Guy, Philippi; Milton J. Lilly, Jr., Charleston; John F. Otto, Huntington; Richard C. Rashid, South Charleston; Richard O. Rogers, Jr., Bluefield, and Edward C. Voss, Wheeling.

*Public Welfare—Joint Conference Committee*: John B. Markey, Charleston, Chairman; Charles E. Andrews, Morgantown; Clemente Diaz, Richwood; Harold P. Dinsmore, Ronceverte; Richard E. Flood, Weirton; Lewis N. Fox, MacArthur; William H. Harriman, Jr., Terra Alta; Kenneth B. Lauren, West Union; Seigle W. Parks, Charleston, and Hiram Sizemore, Jr., Shepherdstown.

*United Mine Workers Welfare and Retirement Fund*: Thomas P. Long, Man, Chairman; Arthur A. Carr, Welch; Ray A. Harron, Bridgeport; John M. Hartman, Charleston; John William Kennard, Wheeling; Elbert Leon Linger, Clarksburg; Lawrence B. Thrush, Clarksburg, and Lee B. Todd, Quinwood.

*Vocational Rehabilitation*: Robert L. Ghiz, Charleston, Chairman; George R. Callender, Jr., Charleston; Carrel M. Caudill, Charleston; Ter-

rell Coffield, New Martinsburg; Creel S. Cornwell, Jr.. Clarksburg; Colin M. Craythorne, Huntington: Charles M. Davis, Jr., Morgantown; Charles R. Loar, Parkersburg; Robert W. Lowe, Huntington; Tony C. Majestro, Charleston; Joseph T. Mallamo. Fairmont; Ralph S. Smith, Jr., Charleston; William H. Wanger, Beckley, and R. James Yates, Beckley.

**Medical Education and Hospitals**

R. James Yates, Beckley, Chairman; Charles E. Andrews, Morgantown; Leo H. T. Bernstein, Martinsburg; Thomas J. Beynon, Weirton; William H. Carter, Charleston; T. H. Chang, Clarksburg; John S. Cook, Welch; Robert W. Coon. Huntington; Creel S. Cornwell, Jr., Clarksburg; Jack E. Cox, Fairmont; C. Richard Daniel, Beckley; Del Roy R. Davis, Kingwood; Thomas O. Dotson, White Sulphur Springs; William J. Echols, Huntington; T. Keith Edwards, Bluefield; Albert C. Esposito, Huntington; Alfred D. Ghaphery, Wheeling; George M. Kellas, Wheeling; George S. Kosar, Weirton; Mary Lou L. Lewis, Charleston; William O. McMillan, Jr., Charleston; David Z. Morgan, Morgantown; Maurice A. Mufson, Huntington; Dennis S. O'Connor, Huntington; R. Wade Ortel, Wheeling; John F. Otto, Huntington; Herbert H. Pomerance, Charleston; Jeffery S. Schultz, Wheeling; L. Dale Simmons, Clarksburg; Robert L. Smith, Morgantown; Michael M. Stump, Elkins; Charles W. Thacker, Parkersburg; John W. Traubert, Morgantown; C. Carl Tully, South Charleston, and Charles E. Turner, Huntington.

**Medical Emergencies and Civil Defense**

Jack Leckie, Huntington, Chairman; Adla Adi, Charleston; John V. Brannon, Bridgeport; Frederick M. Cooley, Charleston; William D. Crigger, South Charleston: Thomas O. Dickey, Wheeling; Henry R. Glass, Jr., Charleston; James C. Hazlett, Wheeling; Jules F. Langlet, Charles Town; Walter H. Moran, Jr., Morgantown; Jack R. Page, Charleston, and William E. Walker, Huntington.

**Medical Scholarships**

John Mark Moore, Wheeling, Chairman; R. L. Chamberlain, Buckhannon; Marshall J. Carper, South Charleston; Robert D. Hess, Clarksburg; Thomas J. Holbrook, Huntington; James T. Hughes, Ripley; Kenneth G. MacDonald, Sr., Charleston; William L. Mossburg, Fairmont, and Clark K. Sleeth, Morgantown.

**Mental Health**

Roy A. Edwards, Jr., Huntington, Chairman; Greenbrier Almond, Buckhannon; Mildred Mitchell-Bateman, Huntington; Donald C. Carter, Morgantown; Ray S. Greco, Weirton; David P. Hill, Wheeling; Florence K. Hoback, Huntington; James Paul Markham, Clarksburg; Wilbur Z. Sine, Morgantown; Larry C. Smith, Huntington; Ralph S. Smith, Jr., Charleston, and Charles C. Weise, Charleston.

**Military Medical Affairs**

Burford W. McNeer, Hinton, Chairman; Bert Bradford, Jr., Charleston; David R. Hess, Bridgeport, and James K. Sexton, Charleston.

**Annual Meeting Program**

M. D. Reiter, Wheeling, Chairman; L. Walter Fix, Martinsburg; David K. Heydinger, Huntington; Joseph B. Reed, Buckhannon; Stanley Roy Shane, Morgantown, and John F. I. Zeedick, Charleston.

**Public Service**

C. R. Davisson, Weston, Chairman; Leonard M. Eckmann, South Charleston; G. Thomas Evans, Fairmont; Louis W. Groves, Jr., Richwood; N. B. Groves, Martinsburg; L. J. Pace, Princeton; Harry Shannon, Parkersburg; Jack J. Stark, Belpre, Ohio, and A. J. Weaver, Clarksburg.

**Resolutions**

Richard E. Flood, Weirton, Chairman; George R. Callender, Jr., Charleston; William E. Gilmore, Parkersburg; Winfield C. John, Huntington; John J. Mahood, Bluefield; Worthy W. McKinney, Beckley; Joseph A. Smith, Dunbar, and Harry S. Weeks, Jr., Wheeling.

**Rural Health**

N. Allen Dyer, Princeton, Chairman; Harold D. Almond, Buckhannon; Ralph H. Boone, Sistersville; David R. Chapman, Keyser; Lemoyne Coffield, New Martinsville; Robert W. Coplin, Elizabeth; Earl L. Fisher, Gassaway; O. M. Harper, Clendenin; Asel P. Hatfield, Harrisville; Joe N. Jarrett, Oak Hill; Charles T. Lively, Weston, and Charles J. Sites, Franklin.

**School Health**

Thomas L. Thomas, Wheeling, Chairman; R. J. Bailey, Parkersburg; Hugh M. Brown, Clarksburg; Thomas G. Folsom, Barboursville; Peter A. Haley, Charleston; Grover C. Hedrick, Jr., Beckley; Mary Jordan, Fairmont; Edward Shupala, Parkersburg, and Eli J. Weller, Weirton.

**Tuberculosis**

Harry K. Tweel, Huntington, Chairman; Charles E. Andrews, Morgantown; Robert M. Biddle, Parkersburg; Dominic J. Gaziano,

Charleston; Ralph H. Nestmann, Charleston; Robert J. Reed III, Wheeling; James H. Walker, Charleston, and Herbert E. Warden, Morgantown.

**Venereal Disease**

N. H. Dyer, Princeton, Chairman; Frank M. Peck, Huntington; David S. Pugh, Chester; Page H. Seekford, Charleston; Thomas L. Thomas, Wheeling; Lyle D. Vincent, Parkersburg; K. William Waterson, Wheeling, and Isaiah A. Wiles, Morgantown.

**AMA-ERF**

Harry Shannon, Parkersburg, Chairman; Russell R. Brandon, Chesapeake, Ohio; Robert W. Coon, Huntington; John E. Echols, Richwood; John H. Gile, Parkersburg; Joseph Gilman, Clarksburg; Joe N. Jarrett, Oak Hill; M. Bruce Martin, Huntington; William T. Lawson, Fairmont; Buford W. McNeer, Hinton; David Z. Morgan, Morgantown; Donald R. Roberts, Elkins; George A. Shawkey, Charleston; John W. Trenton, Kingwood, and E. Andrew Zepp, Martinsburg.

**WVU Medical Liaison**

James L. Bryant, Clarksburg, Chairman; Kenneth J. Allen, Glen Dale; William E. Barnes, Parkersburg; Dewey F. Bensenhaver, Petersburg; W. T. Booher, Jr., Wellsburg; K. Douglas Bowers, Jr., Morgantown; A. Kyle Bush, Philippi; James Wm. Campbell, Wheeling; Terrell Coffield, New Martinsville; C. Richard Daniel, Beckley; Del Roy R. Davis, Kingwood; G. Thomas Evans, Fairmont; John M. Grubb, Point Pleasant; Carl B. Hall, Charleston; J. C. Huffman, Buckhannon; Joe N. Jarrett, Oak Hill; Kenneth G. MacDonald, Sr., Charleston; Ross E. Newman, Mullens; Russell A. Salton, Williamson; Robert G. Shirey, Lewisburg; John W. Traubert, Morgantown; Herbert E. Warden, Morgantown, and J. Hugh Wiley, Morgantown.

**Marshall Medical Liaison**

Winfield C. John, Huntington, Chairman; Carl R. Adkins, Fayetteville; David F. Bell, Jr., Bluefield; John S. Cook, Welch; John M. Daniel, Beckley; Albert C. Esposito, Huntington; John P. Franz, Wheeling; C. A. Hoffman, Huntington; I. M. Kruger, Logan; Muthusami Kuppusami, Welch; Jack Leckie, Huntington; Arthur E. Levy, Williamson; Thomas P. Long, Man; Houston B. Moore, Lewisburg; Joseph T. Skaggs, Charleston; Richard L. Slack, Point Pleasant; Charles E. Turner, Huntington; Robert Bruce Walker, Hamlin, and R. James Yates, Beckley.

## Medical Practice Act Study Group Named By Doctor Ward

Dr. Stephen D. Ward of Wheeling, the Medical Association's President, has named the other members of an ad hoc committee to serve under his leadership on an immediate review of West Virginia's Medical Practice Act, and model legislation toward updating it.

The committee was established by a resolution adopted by the Association's House of Delegates during the state organization's August 22-25 Annual Meeting in White Sulphur Springs (see page —— for the text of the resolution.

Others who will serve with Doctor Ward will include Drs. George S. Pickett, West Virginia's Health Director and Secretary of the Medical Licensing Board; Drs. Harry S. Weeks, Jr., of Wheeling, a Licensing Board member, and Frank J. Holroyd of Princeton, the Board's Chairman; Dr. Philip M. Sprinkle of the West Virginia University School of Medicine faculty in Morgantown; Dr. Jack Leckie of Huntington, and Dr. Harry Shannon of Parkersburg.

Meanwhile, Doctor Ward also has announced the appointment of Dr. William N. Walker, Jr., Bridgeport anesthesiologist, as Chairman of the Association's Ad Hoc Committee on the Impaired Physician.

Other Committee members are Drs. Richard V. Lynch, Jr., of Morgantown; Donald A. Blum of New Martinsville, Ralph S. Smith, Jr., and James M. Stevenson, both of Charleston, and Thomas A. Haymond of Masontown.

## Work Begins on Program For 1980 Convention

The Program Committee for the State Medical Association's August 20-23, 1980, Annual Meeting, again to be held at The Greenbrier in White Sulphur Springs, already is at work on the scientific portion of the agenda.

The Committee, with Dr. M. D. Reiter of Wheeling as Chairman, held its first meeting on August 24, during the Association's 1979 convention. Other Committee members are Drs. L. Walter Fix of Martinsburg, the Association's President Elect; David K. Heydinger of Marshall University's School of Medicine in Huntington; Joseph B. Reed of Buckhannon; Stanley Roy Shane, of the West Virginia University School of Medicine faculty, and John F. I. Zeedick of South Charleston.

## Doctor Van Liere, Associate Journal Editor, Dies

Dr. Edward J. Van Liere, former Dean of the West Virginia University School of Medicine and one of the "founding fathers" of the WVU Medical Center, died unexpectedly of an apparent heart attack on September 5.

Doctor Van Liere, who would have been 83 on October 30, had worked at his Medical Center office earlier in the day. He was stricken at home a few hours after dinner and died within minutes. Mrs. Van Liere was with him at the time.

Doctor Van Liere was an Associate Editor of *The West Virginia Medical Journal* for 41 years and wrote some 250 scientific editorials and some Special Articles during that period. Most recently, he was the author of a Special Article (January, 1979) entitled "An Associate Editor for Forty Years."

He had retired as Dean in 1961 and gave up his last teaching post in physiology five years later when he reached the mandatory retirement age of 70. But he continued to write and consult as Professor Emeritus and came daily to his office for four or five hours.

### Planned Four-Year School

A Kenosha, Wisconsin, native and a medical graduate of Harvard University, he joined the WVU faculty in 1921 and was named Dean of WVU's two-year medical school in 1935. He also earned a Ph. D. from the University of Chicago in 1927.

Doctor Van Liere principally was responsible for planning the expanded four-year school when the Medical Center was established in the late 1950s, but stepped aside as he approached age 65 to let a new team take over.

As a research scientist, Doctor Van Liere was a world authority on hypoxia, the result of oxygen deprivation on the human body. He was a prolific writer and authored nine books and 235 scientific articles. His last book, a history of the

## Here Is Final Message From Doctor Van Liere

The late Dr. E. J. Van Liere never slowed down during his more than 40 years as an Associate Editor of *The West Virginia Medical Journal*. On August 29, just a week before his death, he wrote the following letter to Managing Editor Charles R. Lewis of *The Journal*, in the wake of his last Editorial Board (Publication Committee) meeting at the Greenbrier in White Sulphur Springs on August 24:

"I enjoyed the meeting of the Publication Committee. It was pleasant to meet all the members. Dr. Joe Jarrett is one of my former students, and I have always had a high regard for him. As I have mentioned before, I believe that your staff and Dr. Ward are doing a splendid job with *The Journal*. It certainly is not easy to get out a journal every month.

"I mentioned to you and Dr. Ward that my book, *One Hundred Years Of Physiology At West Virginia University*, is now available. You asked that I send you a copy. I thought it proper to send a copy to Dr. Ward and he can send it on to you. I am afraid that it is not light reading, for it is quite factual. I hope that it may be of some historical interest to the University Medical School. Anyway, I was urged to write it.

"I relate in the book one episode which, so far as I know, never has been published. It has to do with Ray Lyman Wilbur, M. D. (p. 13). He told me many years ago that at the turn of the century he applied for a position in physiology at West Virginia University, and with a smile added that his application was not successful. As you may know, he finally became President of Stanford University and during World War I became a national figure. Had he come to West Virginia University, I am sure he would have brought honor to the institution. He was indeed an able man. While in appearance he was somewhat stern, he really was a pleasant person and I had great respect for him.

"In any event, someone may wish to review my book for *The Journal*. I am in hopes that many of the medical alumni of the School of Medicine will purchase a copy."

With thanks and best wishes,

Edward J. Van Liere

Department of Physiology in the School of Medicine, came off the presses only three weeks before his death.

One of Doctor Van Liere's graduates was Dr. Dana L. Farnsworth, who achieved fame as a Harvard medical school faculty member. Doctor Farnsworth wrote recently: "Of all the faculty members in the WVU School of Medicine during the period from 1919 to the present, I believe that Doctor Van Liere had the greatest influence and used it most effectively to bring about the dramatic development of the school into an institution of the highest rank."

#### Harvard Medical Degree

Doctor Van Liere is survived by his widow, the former Alice Hartley of Morgantown; a daughter, Mrs. George L. Batchelder of San Mateo, California; three grandsons, and a sister, Mrs. W. F. Wilkey of Port Washington, Wisconsin.

Doctor Van Liere was born at Kenosha on October 30, 1895, the son of the late Martin and Wilhelmina Van Liere.

He did his undergraduate work and obtained a master of science degree in 1916 from the University of Wisconsin. While still a student he had his first scientific article published in the Journal of the American Medical Association, the beginning of a distinguished writing career.

**Here, certainly, was one of the late Dr. E. J. Van Liere's happiest hours. He is pictured with all of the other members of THE WEST VIRGINIA MEDICAL JOURNAL Editorial Board at a meeting at the Greenbrier in White Sulphur Springs in August, 1978. Doctor Van Liere also attended the Board's 1979 meeting on August 24, less than two weeks before his death. Seated in the center of this photograph, Doctor Van Liere is flanked by Dr. Stephen D. Ward (left) of Wheeling, Editor of THE JOURNAL, and Dr. John M. Hartman of Charleston. Standing (left to right) are Drs. Thomas J. Holbrook of Huntington, L. Walter Fix of Martinsburg, Joe N. Jarrett of Oak Hill and Vernon E. Duckwall of Elkins, Associate Editors along with Doctors Van Liere and Hartman.**

He received his medical degree at Harvard in 1920 and was teaching physiology at the University of South Dakota when he accepted the invitation to join the WVU faculty in 1921.

#### Becomes Dean in 1935

He became Dean in 1935 on the retirement of Dr. John N. Simpson, and not long after, the school lost its accreditation. He reorganized it and within two years accreditation was regained.

Doctor Van Liere worked toward establishment of a four-year school because "I soon came to realize that the Medical School would develop or cease to exist."

In 1951, the Legislature authorized a Medical Center to be financed initially by a penny-a-bottle pop tax, and the first students were admitted in 1957. Doctor Van Liere retired in favor of his colleague and long-time friend, Dr. Clark K. Sleeth, only a year before the first medical degrees were awarded by the School of Medicine.

The literature-loving physician took an interest in later life in Conan Doyle's famed detective, Sherlock Holmes, mainly because Doyle was a physician. He wrote a book entitled "A Physician Enjoys Sherlock Holmes," discussing interesting medical and scientific points raised in various tales of the great detective.

## House Provides New Status For Students, Residents

Constitution and by-laws amendments adopted by the House of Delegates will provide for membership for medical school students in the West Virginia State Medical Association; and seats in the House for Resident Physician and Medical Student Sections.

The amendments were adopted during the Association's 112th Annual Meeting in White Sulphur Springs August 22-25. They were printed in October, 1978, and August, 1979, issues of *The West Virginia Medical Journal*, and will not be discussed again in complete detail here.

Meanwhile, the House sent back to the Association's Committee on Constitution and By-laws other proposed amendments to provide for additional members on the Association Council as Association membership in the various councilor districts might increase.

Discussion on the House floor raised several technical questions, and the Committee now will give the whole matter further study with plans to report back to the House at its first meeting during the Association's 1980 convention next August.

Briefly, the amendments adopted will make eligible for Association memberships, with annual dues of $15, students enrolled in accredited schools of medicine in West Virginia granting doctor of medicine degrees. The academic status of each student applicant for such membership shall be certified by the dean of his or her medical school.

Provisions for the new Resident Physician and Medical Student Sections in the Association framework stipulate that each such section shall develop its own constitution and bylaws or other organizational procedures, and elect its own officers. Such organizational structures shall not be inconsistent with principles of organization of the State Medical Association, and shall be subject to approval by the Association's Council.

Each of the new sections shall be entitled to elect one delegate and one alternate to the Association's House of Delegates each year, with the sections reporting the names of those choices to the Association's Executive Secretary by May 1 each year.

Also included in the new amendments are specific guidelines for the organization and operation of all scientific sections and societies established under provisions of the constitution and by-laws. This language fills a void which has existed until now in the by-laws, in particular.

## Heads Counseling Group

Robert J. Wilkinson, Jr., Ps. D., of Roanoke, Virginia, was elected President of the American Counseling Association (ACA) at the organization's annual meeting held in Roanoke in August.

A native of Huntington, his late father was President of the West Virginia State Medical Association in 1944-45.

Doctor Wilkinson was administrator of the Wilkinson Clinic in Huntington from 1944 to 1953, and has since been a newspaperman and college teacher.

Membership in the ACA is open to physicians, attorneys and others engaged in counseling.

Dr. Mildred Mitchell-Bateman of Huntington is a Director of the ACA.

## Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1979, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

| | | |
|---|---|---|
| Oct. 18 | Morgantown | Surgical Stapling Seminar |
| Oct. 19 | Morgantown | Cleft Palate Teaching Day[3] |
| Oct. 19-20 | Morgantown | Critical Medicine[2] |
| Nov. 1 | Morgantown | Annual Pediatric Day |
| Nov. 2 | Morgantown | Conference on Continuing Medical Education |
| Nov. 9 | Wheeling | Family Practice Update '79 |
| Nov. 9-10 | Morgantown | Diabetes Day |

[2]Cosponsored with WV Chapter, Am. College of Surgeons

[3]Cosponsored with WVU School of Dentistry

**Visiting Professors**

(Morgantown)

Oct. 11-12 *Dept. of Obstet.-Gynecol.*: David G. Decker, M. D., Mayo Clinic, Rochester, MN, "Ovarian Cancer—The Threat and the Promise" and "The Stilbestrol Question—Current Status"

| | |
|---|---|
| Oct. 12 | *Dept. of Radiology*: Alex Norman, M. D., Professor of Radiology, Mt. Sinai School of Medicine Hospital for Joint Diseases, New York City |
| Oct. 12-13 | *Dept. of Surgery*: P. H. Sandblom, Switzerland, "General Surgery Problems" and (to be announced) |
| Oct. 17 | *Dept. of Radiology*: Ann Osborne, M. D., Associate Professor of Radiology, University of Utah Medical School, Salt Lake City, Utah |
| Oct. 19-20 | *Dept. of Surgery*: Watts R. Webb, M. D., Professor and Chairman, Tulane University, "Bedside Management of Shock" (Heiskell Memorial Lecturer, Dept. of Surgery/Fall Meeting, W. Va. Chapter, ACS Program; and (Oct. 20) Dept. of Surgery/Fall Meeting, W. Va. Chapter, ACS Program |
| Nov. 16-17 | *Dept. of Surgery*: Olga Jonasson, M. D., Chief of Surgery, Cook County Hospital, Chicago (topics to be announced) |
| Dec. 14 | *Dept. of Radiology*: Charles Kerber, M. D., Professor of Radiology, Presbyterian-University Hospital, Pittsburgh |
| | *Dept. of Anesthesia*: One Thursday each month, 4 p. m. |
| | *Dept. of Medicine*: Variable—incorporated in Grand Rounds |
| | *Dept. of Family Practice*: Variable—incorporated in Grand Rounds |

**Dr. L. Walter Fix of Martinsburg, then Vice President but now President Elect of the West Virginia State Medical Association, discusses matters of general concern with Assistant Director John A. Krichbaum of the American Medical Association's Legislative Department during the Annual Meeting of the AMA's House of Delegates in Chicago in July.**

# *Review A Book*

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Principles of Clinical Electrocardiography, 10th Edition*, by Mervin J. Goldman, M. D. 415 pages. Price $12. Lange Medical Publications, Los Altos, California 94022. 1979.

*Annual Review of Neuroscience, Volume 2*, W. Maxwell Cowan, Editor, and Zach W. Hall and Eric R. Kandel, Associate Editors. 555 pages. Annual Reviews, Inc., 4139 El Camino Way, Palo Alto, California 94306. 1979.

*Clinical Cardiology, 2nd Edition*, Maurice Sokolow, M. D., and Malcolm B. McIlroy, M. D. Price $17.50. Lange Medical Publications, Los Altos, California 94022. 1979.

*Growth Standards in Children*, by Herbert H. Pomerance, M. D., with a contribution by John M. Krall, Ph. D. 225 pages. Price $25. Harper & Row, Publishers, Inc., P. O. Box 7777 — RO200, Philadelphia, Pennsylvania 19175. 1979.

*Review of Medical Physiology, 9th Edition*, by W. F. Ganong, M. D. 618 pages. Price $14. Lange Medical Publications, Los Altos, California 94022.

*One Hundred Years of Physiology at West Virginia University, 1869-1969*, by Edward J. Van Liere, Ph. D., M. D. 124 pages. Price $10. West Virginia University Foundation, Morgantown, West Virginia 26506. 1979.

*Review of Physiological Chemistry, 17th Edition*, by Harold A. Harper, Ph. D.; Victor W. Rodwell, Ph. D., and Peter A. Mayes, Ph. D., D. Sc. 702 pages. Price $14.50. Lange Medical Publications, Los Altos, California 94022. 1979.

## Doctor Mou Named To Board Of Regents Post

Dr. Thomas W. Mou has been named Acting Vice Chancellor for Health Sciences Education on a part-time basis for the West Virginia Board of Regents. He will continue as Dean of the

Charleston Division of the West Virginia University Medical Center, where he has been since 1977.

The announcement was made recently by Dr. Ben L. Morton, Chancellor of the Board of Regents.

The new Vice Chancellor received his undergraduate degree from Philadelphia College of Pharmacy and Science and his medical degree from the University of Rochester School of Medicine.

He has held several faculty appointments in New York and joined the WVU staff in 1977 as a Professor of Medicine following a period from 1968 to 1976 as Professor of Community Health at State University Upstate Medical Center, Syracus, New York.

His previous administration appointments include being Provost for Health Sciences from 1971 to 1976 at State University of New York at Albany, and Associate Chancellor for Health Sciences from 1976 to 1977 at the same institution.

## Position Statement Adopted By House of Delegates

The House of Delegates adopted the following statement of position during the August 22-25 Annual Meeting of the West Virginia State Medical Association held in White Sulphur Springs:

"Statement on Referrals From and To Licensed Limited Practitioners"

"Because of confusion over professional responsibility in regard to referrals from or to licensed limited practitioners—confusion which has been engendered by recent discussion and controversy relative to the provisions of health care—the West Virginia State Medical Association adopts the following statement of position:

"In the interest of patient care and comfort, a physician may accept referrals from, and may refer a patient to, another physician or to any other legally recognized provider of health care services, including any licensed limited practitioner.

"The primary consideration in any referral should be the demonstrated competence of the practitioner; the reputation of the practitioner within the professional community and the need for the diagnostic and therapeutic service offered by that practitioner.

"The statement supersedes all previous positions relative to licensed limited practitioners."

## Speakers On Meningitis, Other Subjects, Announced

Speakers on meningitis, Reye's Disease, and non-invasive techniques have been announced for the 13th Mid-Winter Clinical Conference next January 25-27. The conference will be held at the Holiday Inn Charleston House, in Charleston.

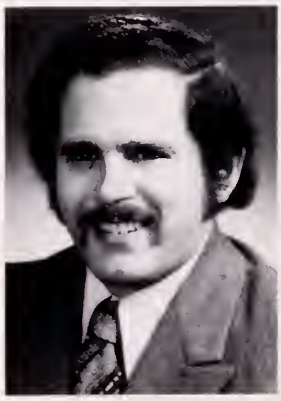
Robert H. Waldman, M. D.

John C. Partin, M. D.

Presenting papers at the opening session on Friday afternoon, January 25. will be Robert H. Waldman, M. D., of Morgantown, whose topic will be "Recent Advances and New Problems in Diagnosis and Treatment of Meningitis," and John C. Partin, M. D., of Cincinnati, "Reye's Disease, a Primary Care Problem: Diagnosis and Treatment."

Doctor Waldman is Professor and Chairman of Medicine at West Virginia University School of Medicine, and Doctor Partin is Professor of Pediatrics, College of Medicine, University of Cincinnati. and Director of the Division of Gastroenterology at the University's Children's Hospital.

"The Non-Invasive Peripheral Vascular Laboratory" will be the title of a paper by Ronald A. Savrin, M. D., of Morgantown during the



Ronald A. Savrin, M. D.

James T. Smith, M. D.

Sunday morning, January 27, session on "Non-Invasive Techniques."

Doctor Savrin is Assistant Professor of Surgery and Director of the Non-Invasive Peripheral Vascular Laboratory at WVU.

Doctor James T. Smith, Charleston radiologist and Director of the Computerized Axial Tomography Laboratory at Charleston Area Medical Center, also will speak Sunday morning about computerized axial tomography.

The annual continuing medical education event will be sponsored by the West Virginia State Medical Association and West Virginia and Marshall University Schools of Medicine.

The conference schedule again will include an educational and informational session for the general public on Friday evening.

**Physician Workshops**

The public session, featuring three well-known speakers, will deal with drug abuse, smoking and alcoholism. Elective workshops in cardiopulmonary resuscitation, and on another subject to be announced, will be held concurrently for physicians.

Friday night's public-session speakers will offer papers on drug and alcohol abuse by physicians, and how patients can be helped to stop smoking, during the Saturday morning, January 26, program.

Physicians will speak from opposing viewpoints on several topics during Saturday afternoon's session on "Current Controversies in Medicine."

A cash bar and hors d'oeuvres will be offered early Saturday evening, but there will be no Saturday night banquet and speaker this year.

**Texas Native**

Doctor Waldman has held his present position since 1976, coming to WVU from the University of Florida. He held a variety of posts with the latter institution, including that as Acting Chairman of the Department of Medicine.

A native of Dallas, Texas, Doctor Waldman was graduated from Rice Institute in Houston and received his M. D. degree in 1963 from Washington University Medical School in St. Louis, Missouri.

He served his internship and residency at Johns Hopkins Hospital in Baltimore, Maryland, and then was with the U. S. Public Health Service for several years before going to the University of Florida in 1967.

Doctor Waldman is a Diplomate of the American Board of Internal Medicine and the American Board of Allergy and Immunology, and a Fellow of the American College of Physicians. He was a member of the Editorial Board of "Infections and Immunity" from 1973 to 1978.

Doctor Waldman is the author or co-author of some 82 scientific articles and 38 chapters in books.

**Research Oriented**

Doctor Partin is a Research Associate and Director of the Clinical Research Center, Children's Hospital Research Foundation; Director of the Foundation's Electron Microscope Laboratory, and Director of the Hospital's Microbiology Laboratory.

He is a Diplomat of the American Board of Pediatrics, and is a member of a number of other organizations, including the Society for Pediatric Research, American Gastroenterology Association, American Pediatric Society, and North American Society for Pediatric Gastroenterology.

Doctor Partin is the author or co-author of some 100 articles and abstracts, plus a number of articles published in "Gastroenterology."

A native of Fort Lewis, Washington, he was graduated from the University of Kentucky and received his M. D. degree in 1959 from the University of Cincinnati.

He interned at Cincinnati General Hospital and completed a residency in pediatrics at Cincinnati Children's Hospital.

**Comes to WVU From Ohio State**

Doctor Savrin came to WVU in 1978 after serving as Instructor in Surgery at The Ohio State University Hospitals from 1974 to 1978.

He was graduated from the University of Rochester (New York) and received his M. D. degree in 1974 from the State University of New York Upstate Medical Center at Syracuse. He completed his internship and residency at The Ohio State University Hospitals.

A native of New York City and East Meadow, New York, Doctor Savrin won first place in the 1978 residency essay contest of the Ohio Chapter, American College of Surgeons.

He is certified by the American Board of Surgery Examination (Part I), and a Candidate, American College of Surgeons.

**Kansas University Graduate**

Doctor Smith, Clinical Assistant Professor of Radiology at WVU, attended Dartmouth College and completed his undergraduate work at Kansas

University. He received his M. D. degree in 1965 from the Kansas University School of Medicine, and also interned and took part of his residency in radiology at that institution's Medical Center. He completed his residency at Duke University Medical Center.

Certified by the American Board of Radiology, Doctor Smith was staff radiologist at the U. S. Air Force Hospital, Wright-Patterson Air Force Base, Dayton, Ohio, while serving with the Air Force from 1970 to 1972.

**Program Accreditation**

The program meets the criteria for 12 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association, and is expected to carry prescribed credit by the American Academy of Family Physicians.

Serving on the Program Committee are Drs. Ralph H. Nestmann and Joseph T. Skaggs, both of Charleston, Co-Chairmen, and Drs. William O. McMillan, Jr., Charleston; Maurice A. Mufson, Huntington; Robert L. Smith, Morgantown, and C. Carl Tully, South Charleston.

Additional details, including other conference speakers, will be provided in later issues of *The Journal* as the program is completed.

## Sports Champions Crowned At Annual Meeting

Dr. Marcel G. Lambrechts, Charleston pediatrician, shot a 73 to win the Medical Golf Tournament championship for the second straight year—and move within one victory of retiring the present trophy.

Winning the women's competition, again in a repeat performance, was Mrs. William E. (Maxine) Gilmore of Vienna with an 85. Mrs. John (Betty) Markey of Charleston had a low-net 72 in the women's play.

Winners of the men's doubles tennis competition in play, like that in golf, held during the Medical Association's and Auxiliary's annual meeting at the Greenbrier in August, were Drs. Jesus T. Ho of Moundsville and R. C. Jereza of Beckley, with the team of Dr. Prospero Gogo of Beckley and Yong Don Joo of Summersville in the runnerup role.

Dr. Gary G. Gilbert of Huntington won a trophy in the men's skeet competition.

In women's tennis play, Mrs. Whaja Park of Charleston and Mrs. Sonya Wong of Baltimore, Marylan, made up the winning doubles team.

## Sections, Societies Designate Officers For New Year

Here are officers of sections and societies affiliated with the West Virginia State Medical Association who were elected or announced during meetings in conjunction with the Association's 112th Annual Meeting at the Greenbrier in August:

Section on Surgery—Dr. Robert J. Reed III of Wheeling, Chairman.

Section on Orthopedic Surgery—Dr. Richard H. Sibley, Charleston, President; Dr. Bernard M. Swope, Welch, Vice President, and Dr. Arthur A. Abplanalp, Charleston, Secretary-Treasurer.

Section on Urology — Dr. James W. Lane, Charleston, President; Dr. Stanley J. Kandzari, Morgantown, Secretary-Treasurer.

Section on Dermatology—Dr. William A. Welton, Morgantown, President, and Dr. Richard A. Hawkins, Charleston, Secretary-Treasurer.

West Virginia Chapter, American College of Emergency Physicians—Dr. Walter H. Moran, Jr., Morgantown, President; Dr. Horace A. Nabers, Jr., Parkersburg, President-Elect; Dr. E. B. Santos, Huntington, Vice President, and Dr. Vincent J. Mazzella, Parkersburg, Secretary-Treasurer.

West Virginia Radiological Society — Dr. Arthur E. Levy, Williamson, President; Dr. John W. Kennard, Wheeling, Vice President, and Dr. Orlando F. Gabriele, Morgantown, Secretary-Treasurer.

West Virginia Chapter, American Academy of Pediatrics—Dr. Herbert H. Pomerance, Charles-

## Scientific Program Supporters Joined By Philips Roxane

Philips Roxane Laboratories, Inc., of Columbus, Ohio, was a late contributor to support for the scientific program offered as a major part of the State Medical Association's 112th Annual Meeting August 22-25 in White Sulphur Springs.

The Philips Roxane grant was received after the August convention issue of *The West Virginia Medical Journal* and the official convention program had gone to press. The contribution was called to the particular attention of the Association's officers, and the House of Delegates, during the meeting.

ton, Chairman: Dr. Gilbert A. Ratcliff, Jr., Huntington, Alternate Chairman, and Dr. Kenneth L. Wible, Morgantown, Secretary-Treasurer.

## Conference For CME Providers Offered By WVU

A conference for persons responsible for continuing medical education of physicians will be held on November 2 in Morgantown at the Ramada Inn.

Two nationally-eminent continuing medical educators, Drs. Thomas C. Meyer and Leonard S. Stein, will participate.

The announcement was made by Dr. Robert L. Smith, Assistant Dean, Continuing Medical Education, West Virginia University School of Medicine. Doctor Smith noted that persons responsible for continuing medical education in West Virginia have expressed a need for the conference.

Leonard S. Stein, Ph. D., is the Executive Director of the Illinois Council on Continuing Medical Education, the accrediting body for continuing medical education in that state. Among his accomplishments has been the development of an annual Surveyor's Workshop for physicians who serve the Council as accreditation surveyors. Doctor Stein will conduct sessions of the conference which will help conference participants in the development of CME goals that are relevant, logical, feasible, and measurable.

**Responsive to Needs**

Thomas C. Meyer, M. D., Chairman, Department of Continuing Medical Education, University of Wisconsin Medical School, is a contributor to the medical education literature and is associated with the unique physician profiling and educational needs services available at the University of Wisconsin. He brings to the conference knowledge and expertise in all aspects of continuing medical education.

The overall goal of the Conference, according to Doctor Smith, will be continuing medical education programs in West Virginia which are responsive to physicians' needs and utilize accepted CME principles.

The conference will meet criteria for six hours of Category 1 credit toward the Physician's Recognition Award of the American Medical Association. Tuition will be $30 for physicians, $15 for others.

The CME conference, Doctor Smith elaborated, will be a working conference for physicians, administrators, educators and others involved in the continuing medical education of physicians who would like to become more proficient in assessing educational needs of physicians, in developing goals for CME programs, and in evaluating CME programs.

For additional registration and other information, contact: Office of Continuing Medical Education, WVU School of Medicine, 104 Basic Science Building, WVU Medical Center, Morgantown 25606; or telephone (304) 293-3937.

**The Veterans Administration Medical Center and the Marshall University School of Medicine broke ground for a new Basic Sciences/Medical Education Building at the VA Medical Center in Huntington on September 7. The architect's sketch of the new facility is shown above. Projected to cost approximately $9 million, the building will house the school's Basic Sciences classrooms and offices, approximately a third of the clinical departments, and support functions such as supplies and learning resources space. The three-story addition to the east side of the VAMC's Administration Building will be leased to the medical school. U. S. Senator Jennings Randolph and Governor John D. Rockefeller IV were among officials participating in the groundbreaking ceremonies.**

## Mrs. D. Sheffer Clark Installed As Auxiliary President

Mrs. D. Sheffer Clark of Huntington assumed the Presidency of the Auxiliary to the West Virginia State Medical Association at the group's 55th Annual Meeting at the Greenbrier in White Sulphur Springs, August 22-25.

Mrs. D. Sheffer Clark

Mrs. Clark was installed by Mrs. Ben Johnson, Jr., of Bessemer, Alabama, President of the Auxiliary to the American Medical Association, who was an honor guest.

Mrs. Clark's husband is an internist.

The Auxiliary elected Mrs. Gary G. Gilbert of Huntington as President Elect and the following additional officers:

Mrs. Richard S. Kerr of Morgantown, Vice President; Mrs. Charles E. Turner of Huntington, Recording Secretary; Mrs. Winfield C. John of Huntington, Corresponding Secretary; Mrs. J. Dennis Kugel of Charleston, Treasurer, and Mrs. M. Bruce Martin of Huntington, Parliamentarian;

Mrs. M. V. Kalaycioglu, Shinnston, Northern Regional Director; Mrs. Herbert E. Warden, Morgantown, Eastern Regional Director; Mrs. T. Keith Edwards, Bluefield, Southern Regional Director; Mrs. Nazam Abraham, Huntington, Western Regional Director, and Mrs. Logan W. Hovis, Vienna, Central Regional Director.

### Committee Appointments

Mrs. Clark also announced these appointments of committee chairmen:

Mrs. Richard S. Kerr, Morgantown, Membership; Mrs. Gary G. Gilbert, Huntington, Members-at-Large and Health Program Development; Mrs. Harvey D. Reisenweber, Martinsburg, Health Careers Loan Fund; Mrs. Gilbert A. Ratcliff, Jr., Huntington, "Think Children" to celebrate "The Year of the Child"); Mrs. Robert S. Robbins, Wheeling, AMA-ERF; Mrs. Joe N. Jarrett, Oak Hill, Long-Range Planning;

Mrs. Larry D. Curnutte, Charleston, Press and Publicity; Mrs. Charles C. Weise, Charleston, News Bulletin Editor; Mrs. S. A. Strickland, Charleston, News Bulletin Circulation; Mrs. Edwin J. Humphrey, Huntington, Archives and History; Mrs. Lynwood D. Zinn, Clarksburg, Necrology; Mrs. J. L. Mangus, Charleston, Finance;

Mrs. M. Bruce Martin, Huntington, By-Laws and Handbook; Mrs. Harry Shannon, Parkersburg, Legislation; Mrs. Harry S. Weeks, Jr., Wheeling, WESPAC; Mrs. Anthony G. DiBartolomeo, Morgantown, Caducean's Liaison; Mrs. Larry C. Smith, Huntington, Convention; Mrs. A. G. Capinpin, Charleston, Southern Medical Councilor, and Mrs. Albert C. Esposito, Huntington, Southern Medical Vice Councilor.

### Music, Business Major

Mrs. Clark (Betty) has been an active Auxilian since 1960. As a member of the Cabell County Auxiliary, she has been on its Board in some capacity since 1961, serving as President in 1970-71.

She has been a member of the State Board for eight years, having been Convention Chairman, Regional Director, Recording Secretary and Vice President before becoming President Elect.

A native of Huntington, Mrs. Clark was graduated from Marshall University with a major in

**New officers of the Auxiliary to the West Virginia State Medical Association were elected during the group's 55th Annual Meeting in August at the Greenbrier in White Sulphur Springs. Some of the officers shown above are, seated (from left), Mrs. J. Dennis Kugel, Charleston, Treasurer; Mrs. D. Sheffer Clark, Huntington, President; Mrs. Gary G. Gilbert, Huntington, President Elect, and Mrs. Richard S. Kerr, Morgantown, Vice President. Standing, from left, are Mrs. Charles E. Turner, Huntington, Recording Secretary; Mrs. Herbert E. Warden, Morgantown, Eastern Regional Director; Mrs. T. Keith Edwards, Bluefield, Southern Regional Director; Mrs. M. V. Kalaycioglu, Shinnston, Northern Regional Director, and Mrs. Logan W. Hovis, Vienna, Central Regional Director.**

music and business administration. She taught junior and senior high school music for one year after graduation.

She plays the violin, and was a member of the Huntington Symphony Orchestra from 1943 to 1953.

The daughter of the late Mr. and Mrs. Noah B. Wellman of Huntington, she was married to Doctor Clark in 1951. Doctor Clark earned his M. D. degree from the Medical College of Virginia and took his residency in internal medicine at McGuire Hospital in Richmond.

Doctor and Mrs. Clark are the parents of three children: Anne Leslie, who is married to James Beavers and lives in Williamsburg, Virginia; Rebecca Leigh, a reporter for the Virginia Gazette in Williamsburg, and David Shanet, who is a senior at the Mercersburg Academy in Mercersburg, Pennsylvania. They have one grandchild, James Aarom Beavers, who was born this past spring.

## Council Action Embraces Variety of Subjects

The State Medical Association's Council heard from several state officials and third-party representatives, and cleared its agenda of several other business items, at its preconvention meeting August 22 in White Sulphur Springs.

Bringing the Council up to date on various activity and program changes primarily related to medical and health care services were Mr. James A. Cuppy of Columbus, Ohio, representing Nationwide Mutual Insurance; State Welfare Commissioner Leon Ginsberg; State Insurance Commissioner Richard Shaw; Mr. Joseph Stone, Administrative Assistant for Claims Processing, Workmen's Compensation Fund, and Dr. Leslie F. McCoy, Assistant Director for Medical Services, State Division of Vocational Rehabilitation.

In other action, the Council:

—Elected to honorary Association membership, subject to House of Delegates approval which followed later on August 22, Drs. E. A. Trinkle of Weston, William P. Warden of Charles Town, O. L. Haynes of Fairmont and George A. Miller of Beckley.

—Reviewed a number of constitutional and by-laws amendments and resolutions also subject to House consideration during the convention; and endorsed for House approval a policy statement on referrals from and to licensed practitioners (this statement is inclued in another story in this issue of *The Journal.*

—Recommended to the House, after accepting an endorsement from the Executive Committee, purchase by the Association of a tract of land in the Kanawha City section of Charleston as a site for a new home for the Association (House approval followed later in the day).

—Accepted an invitation from the Greenbrier to return August 20-23, 1980, for the Association's 113th Annual Meeting.

—Recognized service rendered the Association by Drs. David H. Williams of Weirton, who did not seek re-election to the Council this year; and Dr. David F. Bell, Jr., of Bluefield, who was not eligible for election to another term.

## First Critical Care Conference Scheduled November 17

Adult respiratory stress, unstable angina, and obstructive lung diseases are among the critical care areas to be discussed at the first Dr. Rowland H. Burns Memorial Critical Care Conference (See September issue of *The Journal*).

William Proudfit, M. D.

Thomas L. Petty, M. D.

The conference will be held Saturday, November 17, at the Gateway Inn in Barboursville. Cosponsored by the Marshall University School of Medicine and the Huntington Internal Medicine Group, Inc., it is open to all practicing physicians, residents and nurses.

Key speakers for the conference include Dr. William Proudfiit of the Cleveland Clinic Cardiology Department and Dr. Thomas L. Petty of Denver, who heads the University of Colorado Medical Center's Pulmonary Sciences Center.

Topics to be covered by the main speakers include: "Adult Respiratory Distress Syndrome State of the Art" and "Critical Care for the Obstructive Lung Diseases," by Doctor Petty; and "The Natural History of Coronary Artery Dis-

ease" and "Results of Coronary Artery Surgery," Doctor Proudfit.

Also conducting sessions will be Dr. Dominic J. Gaziano of Charleston, a pulmonary specialist in private practice, and two cardiologists from the Huntington Internal Medicine Group, Dr. Patrick L. Brown and Dr. Everett B. Wray III. Doctor Gaziano will discuss "Methods of Weaning Patients from Respirators," while the two cardiologist will deal with "Unstable Angina: A Medical Emergency."

Serving as moderators for the conference will be Dr. Charles E. Turner and Dr. William Sheils, members of the Marshall medical school faculty and the Huntington Internal Medicine Group.

Conference participants may earn six hours of Category I continuing medical education credit, according to Dr. David K. Heydinger, MU Medical School Associate Dean for Academic and Clinical Affairs. There will be a $60 registration fee for physicians and a $20 fee for residents and nurses.

"The Burns Memorial Critical Care Conference is a most appropriate memorial to the late Dr. Rowland Burns, a specialist in heart/lung diseases and a senior member of the Huntington Internal Medicine Group, who died April, 1978," Doctor Turner commented.

Additional information and registration details may be obtained by writing Doctor Turner, 1115 20th Street, Huntington 25703, or Doctor Heydinger at the School of Medicine, Marshall University, Huntington 25701 (telephone 304-696-6622).

## Rural Health Care In The 80s Conference Lead-Off

A look into the crystal ball for a view of rural health care in the 1980s will open the 33rd National Conference on Rural Health in Boston next spring.

At the keynote session of the two-day conference on April 17, 1980, at the Sheraton-Boston, Jacob Koomen, M. D., Clinical Professor of Health Administration at the School of Public Health, University of North Carolina, will examine the problems to be faced in rural health delivery in the coming decade and discuss programs to deal with those problems.

Some of the seminars during the conference will deal with self-care, home health and hospice care, nurse practitioners, mental health in rural settings, emergency medical services, and extrication from farm equipment.

# *Medical Meetings*

Oct. 4-6—Am. Neurological Assn., St. Louis.

Oct. 8-11—AAFP, Atlanta.

Oct. 13-17—Indiana State Med. Assn., Indianapolis.

Oct. 13-18—Am. Academy of Pediatricians, San Francisco.

Oct. 21-27—Am. College of Gastroenterol., Anaheim, Calif.

Oct. 22-26—ACS (Clinical Congress), Chicago.

Nov. 1-3—Pa. Med. Society, Camp Hill.

Nov. 1-4—Med. Society of Va., Hot Springs.

Nov. 3-4—AMA Regional Meeting, Asheville, N. C.

Nov. 4-5—Am. College of Preventive Med., New York.

Nov. 4-7—Southern Med. Assn., Las Vegas.

Nov. 4-8—Am. Public Health Assn., New York City.

Nov. 4-8—Am. College of Chest Physicians, Houston.

Nov. 5-9—Am. Academy of Ophthalmol., San Francisco.

Nov. 16-17—Med. Society of Delaware, Wilmington.

Nov. 17—Rowland H. Burns Memorial Critical Care Conference, Barboursville.

Nov. 17-18—AMA Regional Meeting, Louisville, Ky.

Nov. 29-30—Am. College of Chemosurgery, Chicago.

Dec. 1-6—Am. Academy of Dermatology, Chicago.

Dec. 2-5—Interim Meeting, AMA House, Honolulu.

**1980**

Jan. 12—AMA Conference on Medical Aspects of Sports, San Antonio.

Jan. 12-15—AMA Winter Scientific Meeting, San Antonio.

**Jan. 25-27—13th Mid-Winter Clinical Conference, Charleston.**

Feb. 7-12—Am. Academy of Orthopedic Surgeons, Atlanta.

Feb. 16-20—Am. Academy of Allergy, Atlanta.

March 9-13—Am. College of Cardiology, Houston.

April 17-18—Rural Health Conference, Boston.

April 18-20—Scientific Assembly, W. Va. Chapter, AAFP, Morgantown.

April 20-23—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

**Aug. 20-23—113th Annual Meeting, W. Va. State Assn., White Sulphur Springs.**

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# Renal Failure As A Presenting Sign Of Metastatic Colon Carcinoma

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*All patients with acute or insidious development of renal insufficiency should be evaluated for the presence of obstructive uropathy. An easily-overlooked entity, urinary tract obstruction is one of the more treatable causes of renal failure. We report two patients who developed reversible renal failure due to ureteral obstruction by metastatic colon carcinoma.*

**Case 1**

A 46-year-old, white female underwent partial sigmoid colon resection for undifferentiated adenocarcinoma in April, 1976. Clinical staging was felt to represent Duke-C (tumor involved the full thickness of the colonic wall, and nine of 31 lymph nodes were positive). Pelvic irradiation in a total dose of 1000 rads was completed in June, 1976.

In July, 1976, she was readmitted with complaints of abdominal discomfort and weakness. Examination revealed a left flank mass. Exploratory laparotomy revealed hydronephrosis of the left kidney due to stenosis of the distal left ureter. Left nephrectomy was performed. In November, 1976, she developed edema of the left lower extremity and was re-evaluated without evidence of recurrent malignancy. Treatment with bed rest and oral diuretics resulted in improvement.

Later admissions in May and August, 1977, for tumor re-evaluation failed to disclose recurrence. She was hospitalized two months later with anorexia, nausea and vomiting. She had noted constipation and anuria for one day, and stated her urine output had been steadily decreasing for the previous two weeks. Physical examination revealed her to be pale and ill-appearing. Vital signs were normal, except for pitting edema of the left lower extremity. The examination was otherwise normal. Hemoglobin was 9.5 grams per cent; hematocrit, 30 per cent; serum potassium, 6.9 mEq/L; carbon dioxide content, 21 mEq/L; BUN, 116 mg/dl; serum creatinine, 9.6 mg/dl; uric acid, 11.7 mg/dl; and LDH, 350 MU/ml. The remainder of the biochemistry profile was normal. Urine was cloudy with a specific gravity of 1.025, 3+ albuminuria and large amounts of occult blood. The following day the serum creatinine had risen to 11.6 mg/dl. Cystoscopy revealed a normal bladder except for signs of post-irradiation cystitis. Retrograde pyelogram indicated a stricture in the right ureter at the level of the crossing of the iliac vessels (Figure). Two periotoneal dialyses resulted in improved clinical condition but the BUN and creatinine remained elevated.

She remained anuric and was transferred to Wheeling Hospital. Physical examination at that time was unchanged except for minimal abdominal tenderness from recent dialyses. Cystoscopy was performed and a right ureteral catheter passed above the stricture with minimal difficulty. Marked diuresis ensued with urine output greater than five liters per 24 hours. Within 48 hours, serum creatinine had fallen to 4.5 mg/dl and BUN to 37 mg/dl. A bone marrow aspiration revealed marked hypoplasia with adequate iron stores and no evidence of malignancy. She continued to improve over the next several days and underwent placement of right nephrostomy tube

**Figure. Right retrograde pyelogram revealing obstruction of the ureter at the pelvic brim, with associated hydroureter and hydronephrosis.**

on November 9. Massive tumor encroachment of the right ureter was noted and a liver biopsy revealed metastatic adenocarcinoma.

Postoperatively, she continued having a brisk diuresis, and renal function returned to normal. A bone scan was negative but the carcino-embryonic antigen was markedly elevated at 102.1 ng/ml. She was started on systemic chemotherapy and discharged home. She had several brief readmissions for chemotherapy. At the time of her death in June, 1978, she had maintained normal renal function with the right nephrostomy tube in place.

**Case 2**

A 61-year-old, white male was admitted to Wheeling Hospital on March 16 1978, because of renal failure. In 1967, an enlarged prostrate was discovered but surgical treatment was not advised at that time. Except for nocturia, he had no urinary tract symptoms until 1972 when he was hospitalized with abdominal pain and hematuria. A renal calculus was removed from the left ureterovesical junction. In July, 1976, a transverse colectomy was performed for a napkin-ring, well-differentiated adenocarcinoma. Lymph nodes were negative for metastasis and he was staged Duke B.

Follow-up with barium enema was performed every six months with the last examination being negative in December, 1977. Approximately 10 weeks prior to this admission, he developed bilateral flank pain and dysuria. He was treated with oral Tetracycline with no definite improvement in his symptoms. Development of a bad taste in his mouth and mild anorexia was attributed to oral Candidiasis. He was hospitalized elsewhere in January, 1978, for persistent complaints of a salty taste in his mouth. Physical examination was unrevealing. White blood count was 11,200 with normal differential. Hemoglobin was 13.1 grams/dl; hematocrit, 39; BUN, 27 mg/dl; serum creatinine, 3.9 mg/dl; and LDH, 175 mU/ml. The remainder of the laboratory studies were unremarkable. An upper G. I. series with small bowel follow-through, oral cholecystogram and liver scan were normal. In spite of treatment for oral Candidiasis, the salty taste persisted, accompanied by increasing anorexia and dysuria.

When seen by another physician on March 15, physical examination revealed an alert, well-oriented and well-nourished white male with pulse 118/min., blood pressure 162/100, and temperature 98° F. Skin was pale and dry with poor turgor. The prostate was hard and enlarged but stool was hemoccult negative. The remainder of the examination was unremarkable: CBC, normal; BUN, 136 mg/dl; creatinine, 15.6 mg/dl; LDH, 270 mU/ml; serum sodium, 157 mEq/liter; chloride, 115 mEq/liter; potassium, 6.1 mEq/liter; and carbon dioxide content, 18mEq/liter. Chest x-ray and electrocardiogram were normal. Intravenous pyelogram disclosed poor visualization of the kidneys. Urinalysis revealed specific gravity, 1.006; protein, 1+; RBCs, 3.5/HPF; WBCs, 25-30/HPF; and urine, sterile.

Cystoscopy was attempted but the cystoscope was unable to be passed into the bladder because of a markedly obstructive and fixed prostate gland. The bladder neck was fixed and immobile. A Foley catheter was passed but urine output did not increase over the previous 500-1000 ml/24 hours. A renal scan was non-diagnostic, revealing poor bilateral renal function. Ultrasound of the kidneys indicated mild-to-moderate bilateral hydronephrosis. Because of worsening uremic symptoms he underwent peritoneal dialysis with improvement in clinical condition and biochemical profile. A transrectal prostate biopsy was done revealing no evidence of malignancy.

He underwent placement of a right nephrostomy tube. A right renal biopsy was compatible with chronic pyelonephritis. A globular mass was noted deep in the pelvis and appeared to encase the iliac vessels and right ureter. Biopsies of this mass and adjacent lymph nodes were positive for metastatic adenocarcinoma.

Postoperatively, urine output rose sharply and he underwent a post-obstructive diuresis for approximately one week. His clinical condition continued to improve and two weeks later BUN and creatinine were 63 mg/dl and 3.7 mg/dl, respectively. Liver scan was normal. Bone scan revealed areas of abnormal uptake in the left hip and right upper rib cage. Serum carcinoembryonic level was 4.7 ng/ml. He was discharged on April 4 and subsequently started on chemotherapy. Renal function remained normal through November, 1978, with the nephrostomy tube remaining in place.

### Discussion

These cases illustrate several points. First, routine follow-up with barium enema was negative for recurrence of malignancy. Yet, at the time each presented with renal failure, widespread metastases were obvious. Since carcinoma of the colon characteristically spreads by lymphatic dissemination,[1] one would expect the retroperitoneal lymph nodes to be involved with frequent development of ureteral obstruction. However, only one to three per cent of deaths from carcinoma of the colon are a result of renal failure [2,3].

Secondly, each had another more common cause of urinary obstruction which temporarily diverted attention away from the diagnosis of recurrent malignancy. In Case 1, left nephrectomy had been performed previously because of radiation-induced ureteral fibrosis and hydronephrosis. The same lesion initially was suspected to be involving the remaining ureter. In Case 2, a large, obstructive prostate gland may have been partially responsible for the patient's early symptoms, but renal insufficiency failed to improve after insertion of a Foley catheter.

Lastly, rapid improvement in renal function occurred in both patients with placement of a nephrostomy tube. Each had developed severe uremia requiring peritoneal dialysis before undertaking more definitive diagnostic and therapeutic measures. In each, insertion of a Foley catheter had failed to yield increased diuresis, indicating that the cause of renal failure was either intrinsic to the kidney (such as acute tubular injury, glomerulonephritis or vascular insufficiency) or that obstruction was above the level of the bladder. Neither patient had been exposed to nephrotoxic agents nor had been hypotensive. One had noted a decreased urine output, but the second had maintained a "normal" urine volume in spite of having almost complete bilateral ureteral obstruction. The finding of normal urine volume should not be interpreted as evidence of absence of urinary tract obstruction; in fact, obstructive uropathy is a well-known cause of polyuria.[4,6]

### Prognosis

Prognosis in patients with carcinoma of the colon has improved with the advent of chemotherapy but is still largely determined by clinical staging at the time of initial presentation and surgery. Five-year survival, according to Duke's classification, is 60 per cent for lesions confined to the mucosa (A), 42 per cent for lesions extending through the mucosa but with negative nodes (B), 18 per cent for lesions with nodal involvement (C), and five per cent for lesions with distant metastases. [3]

Also crucial for a good prognosis is whether a curative or a palliative operative procedure is performed. Two thirds of recurrences of colon cancer are apparent within two years of the initial operation with 85 per cent of patients having specific symptoms. A 45-per-cent incidence of hydroureter at autopsy among patients with recurrent rectal carcinoma suggests that urinary tract involvement is common, despite the low mortality (one to three per cent) from renal failure in these patients. The incidence of subsequent ureteral involvement among patients with primary tumors involving the ascending and transverse colon is not documented. Diagnosis of bilateral ureteral obstruction in these patients may be difficult because of the onset of vague, rather than specific, symptoms, the finding of normal urine volume, and a recent negative metastatic evaluation involving merely colon x-rays, sigmoidoscopy or radionuclide scans. Prostate enlargement, neurogenic bladder and other causes of bladder outlet dysfunction may also be present, but renal failure in these instances generally improves dramatically with insertion of a urethral catheter.

A review of the literature has disclosed a paucity of information on the development of renal failure subsequent to metastatic colon carcinoma. Calcified nodal metastases have been reported to cause unilateral obstructive uropathy.[8] Two of seven patients evaluated for unexplained renal failure were found to have ureteral obstruction due to metastatic colon carcinoma,[9] similar to the patients described in this report. Most pa-

tients undergoing surgery or receiving adjuvant chemo- or radiotherapy are followed at regular intervals. Physical examination, barium enema, sigmoidoscopy and a variety of radionuclide scans are frequently performed. It is our impression that pyelography or ultrasonography are not as commonly employed in routine post-operative folow-up.

### Symptoms Vague

Eighty-five per cent of patients with recurrent colon cancer are able to describe specific symptoms such as abdominal pain or changing bowel habits. However, symptoms of even severe renal insufficiency are notoriously vague and may consist of weakness, nausea, anorexia and lethargy. Especially when such complaints are accompanied by any abnormal symptoms of the genitourinary tract (dysuria, nocturia, etc.), a complete evaluation of the urinary tract is indicated. In the presence of marked renal insufficiency (serum creatinine in excess of 4 mg/dl, pyelography may not provide suitable delineation of the renal collecting system. Ultrasonography is a non-invasive tool in evaluating such patients for the presence of hydronephrosis[9-11] and may preclude the need for laparotomy.

We recommend that renal function studies and pyelography be performed routinely in the post-operative follow-up of patients with carcinoma of the colon, in the same manner as barium enema and sigmoidoscopy. Such patients who develop renal insufficiency, especially within two years of the initial diagnosis, should be evaluated aggressively for obstructive uropathy. Even in the absence of suggestive roentgenographic findings or a characteristic sonogram, passage of a urethral catheter must be an early step in diagnosis. If renal function does not improve dramatically with subsequent diuresis, retrograde pyelography and placement of a ureteral catheter, and possibly a nephrostomy tube, should be performed without delay.

### Acknowledgements

We wish to thank Dr. Thomas Schmitt for permission to discuss his patient (Case 2), Dr. James Durig for his urologic assistance in the care of these patients, and Mrs. JoAnn Fisher for typing this manuscript.

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# Metastatic Ovarian Carcinoids: A Case Report

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*A rare case of ovarian metastatic carcinoids without primary lesion in the intestine or elsewhere is presented. Although metastasis of carcinoids is often misdiagnosed as a Brenner tumor, granulosa cell tumor, adenocarcinoma, or adenofibroma, the most difficult diagnosis to exclude is primary ovarian carcinoid. A review of world literature discloses that the prognosis of metastatic ovarian carcinoids is poor. Postoperative high 24-hour urinary 5-hydroxy-indole acetic acid may indicate chemotherapy for those patients.*

CARCINOID tumors are relatively uncommon neoplasms that have attracted particular interest in the last two decades. The cell of origin has been thought to be the Kulchitsky cell. Recently, it has been suggested that more than one cell type may be involved. Although carcinoid tumors were originally considered to be benign, it is now recognized that those arising outside the appendix are frequently malignant.[1] They are found throughout the gastrointestinal tract, biliary tract, pancreas, lung, ovary, and testis. Carcinoids occur more frequently in the appendix than elsewhere. In the lung, approximately 90 per cent of adenomas are of the carcinoid type.[2] The ovarian carcinoid, which was first described by Stewart *et al.* in 1939, includes a variety of primary and metastatic forms. The primary form consists of the common insular type, the less common trabecular type, and the rare strumal type. Metastatic ovarian carcinoids, which almost always originate in the intestine, are rare tumors.[4] Review of the literature has revealed a total of 83 cases of primary and 39 cases of metastatic ovarian carcinoids. [1,5-30] The present case is interesting because of the absence of primary tumor in the intestine or elsewhere.

**Case History**

A 62-year-old, white female was admitted to the hospital on May 10, 1978, with a two-year, six-month history of weakness, night sweats, lower back pain, lower abdominal pain, and intermittent vaginal bleeding. She had been hypertensive and diabetic for several years. The history revealed that she had had a cholecystectomy and had been admitted one year previously for coronary insufficiency.

On admission, physical examination revealed an obese female with questionable malar flush, blood pressure of 130/80 mm. of Hg., normal sinus rhythm of heart, no cardiac mumurs, and no neurological deficits. The results of laboratory tests were within normal limits, except for initial low serum potassium (2·7 mEq/litre), slight elevation of BUN (30 mg. per cent), and uric acid (7.8 mg. per cent). Postoperative 24-hour urinary 5-hydroxy-indole acetic acid was not determined. Pap smears were negative.

On May 16, 1978, a laparotomy was performed and bilateral tumors were found arising from the ovaries which were adherent to the small intestine. Several peritoneal implants were also

**Figure 1. Right ovarian mass with a knobby appearance.**

noted. These were biopsied and showed metastatic tumor. The liver was free from tumor and the appendix was unremarkable. Careful examination of the intestine did not show any tumor. A hysterectomy with bilateral salpingo-oophorectomy was performed.

Postoperative recovery was uneventful. Five weeks postoperatively, 24-hour urinary 5-hydroxy-indole acetic acid was elevated (16.7 mg/day).

**Pathological Features**

The right and left ovarian tumors measured five by four and seven by three centimeters, respectively, and weighed 50 gms. each. The external surfaces had a knobby appearance (Figures 1 and 2). On section, the tumors were firm and were composed of a confluence of bright yellow nodules (Figure 3).

On lower-power microscopic examination, sharply-demarcated islands of tumor cells of varying shapes and sizes were evident (Figure 4). The stroma was fibromatous. One additional feature observed was acini, the lining cells of which had basal nuclei and abundant cytoplasm bordering the lumen (Figure 5).

On high-power microscopic examination the tumor cells were small and uniform in size. The nuclei were small, fairly uniform in size, and

**Figure 2. Left ovarian tumor showing a nodular surface.**

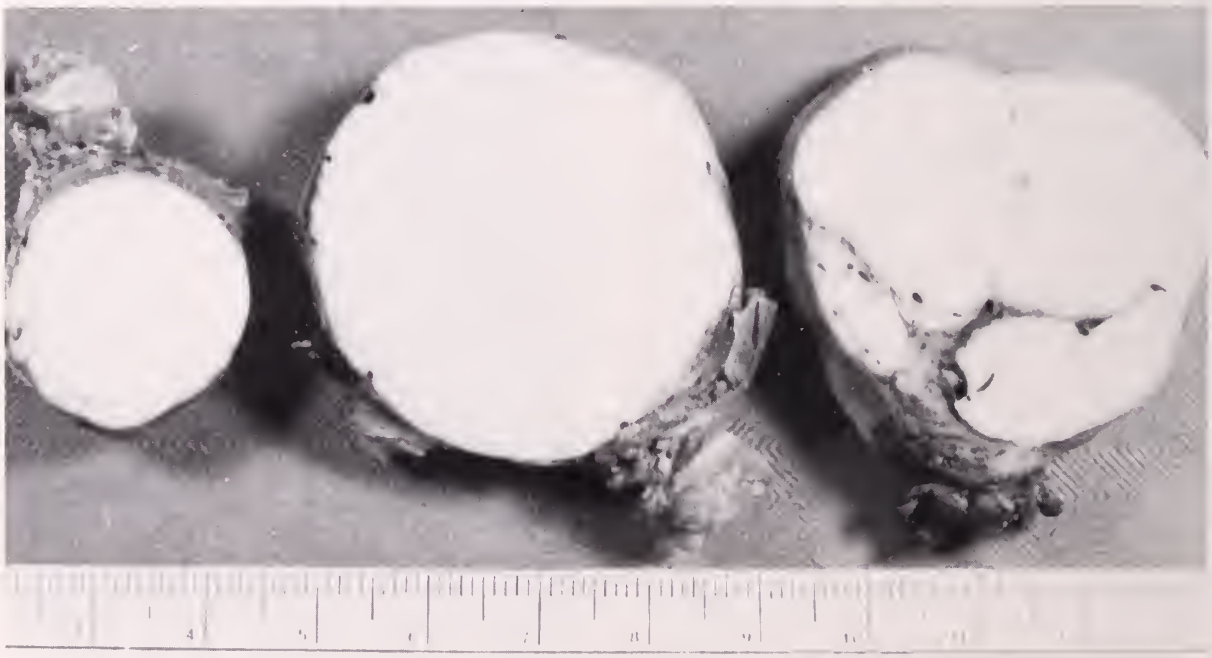

**Figure 3. Multiple nodules visible on cut section of ovarian metastasis.**

showed highly characteristic coarsely- and evenly-clumped chromatin (Figure 5).

Occasionally, large nuclei were noted. The cell borders were fairly distinct in most places. The cytoplasm was eosinophilic and, on Fontana-Masson's stain,[31,32] showed argentaffin granules (Figure 6). The stroma was composed of spindle cells with prominent nuclei. Clusters of tumor cells were occasionally seen in the blood vessels. The same kind of tumor was also seen in the omentum and serosal surfaces of the large bowel.

### Discussion

Carcinoid tumors of the ovary are rare, especially the metastatic forms. Until now, only 39 cases have been described in the world literature. The approximate incidence of metastatic carcinoids to the ovary is 0.1 per cent of all malignant tumors of the ovary.[24] The age of onset of this

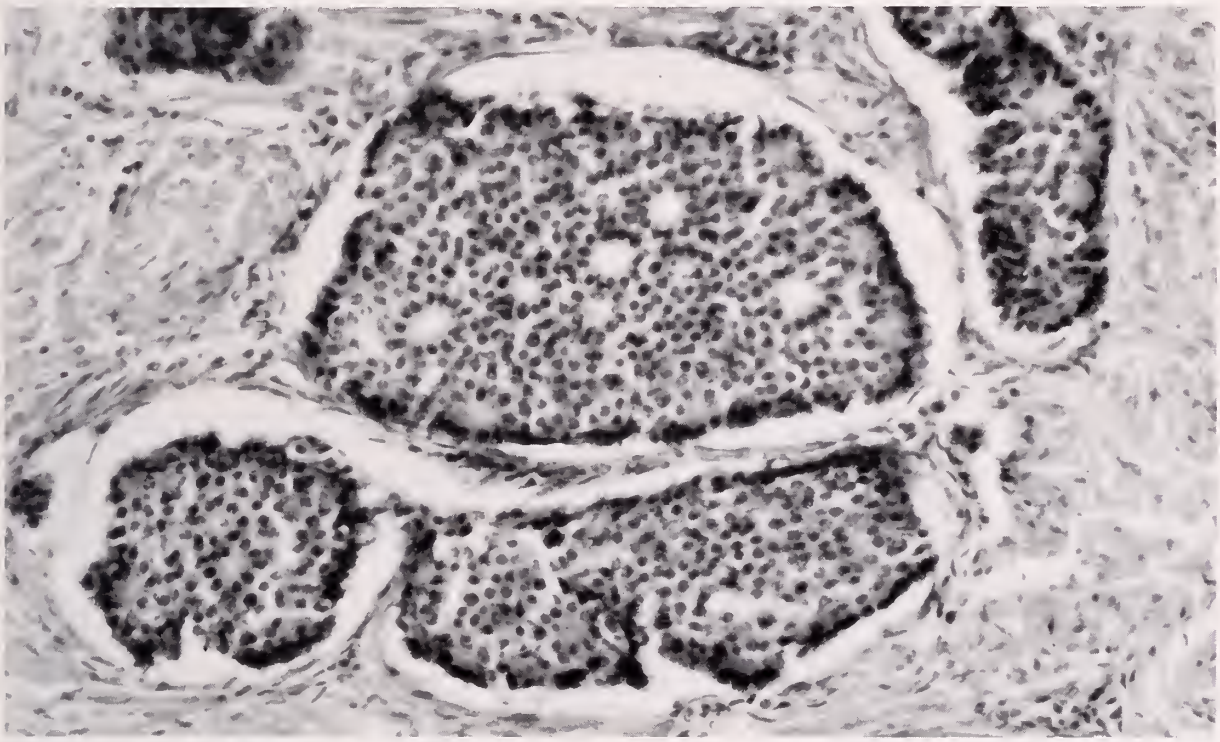

**Figure 4. Low-power microscope showing sharply demarcated islands of tumor cells of varying sizes and shapes.**

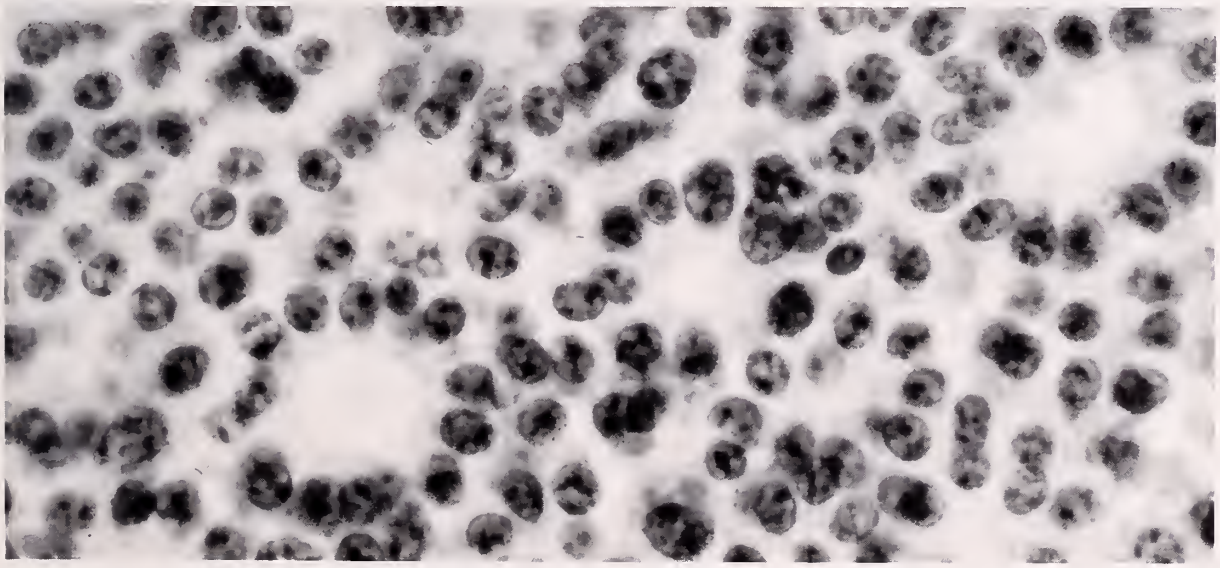

**Figure 5. Cells with small, round nuclei and clumped chromatin and prominent cytoplasmic borders of some cells. The acini have basal nuclei.**

tumor ranges from 21 to 82, with a median age of 57.[24]

The primary ovarian carcinoid is distinguished from the metastatic tumor, which is nearly always bilateral and is usually associated with peritoneal metastasis.[25] In addition, most primary carcinoids of the ovary have been components of teratomas.

Despite their distinctive gross and microscopic characteristics, the metastatic carcinoids of the ovary can be confused with several other ovarian tumors such as Brenner tumor, granulosa cell tumor, adenofibroma, adenocarcinoma, and primary ovarian carcinoid. The metastatic carcinoids are nearly always bilateral and multi-nodular. The Brenner tumor consists of nests of epithelial cells lying in a fibromatous stroma. The cells of the epithelial nests show characteristic longitudinal grooving of nuclei to produce a "coffee-bean" pattern instead of round nuclei with coarse chromatin. The cytoplasm is devoid of any argentaffin granules. The granulosa cell tumor may form sheets or nests of cells with cystic cavities, Call-Exner bodies. These cavities are surrounded by haphazardly-arranged cells which have scant cytoplasm and irregular-shaped nuclei without coarse chromatin. Adenocarcinomas and adenofribromas show characteristics of common epithelial tumors of the ovary (serous, mucinous, or endometroid).

The tumor that is most difficult to differentiate from metastatic carcinoid is the primary ovarian carcinoid, particularly when there is no other tumor in the gastrointestinal tract or elsewhere. Five such cases have been reported in the literature.[24] Our present case falls into that category. When teratomatous elements are present in the ovary, the correct diagnosis is obvious. The differences between primary and metastatic carcinoids are described in the Table.

We believe that our case represents a rare case of metastatic carcinoid of the ovaries without primary in the gastrointestinal tract or elsewhere in the body. It has all of the other criteria of a metastatic tumor.

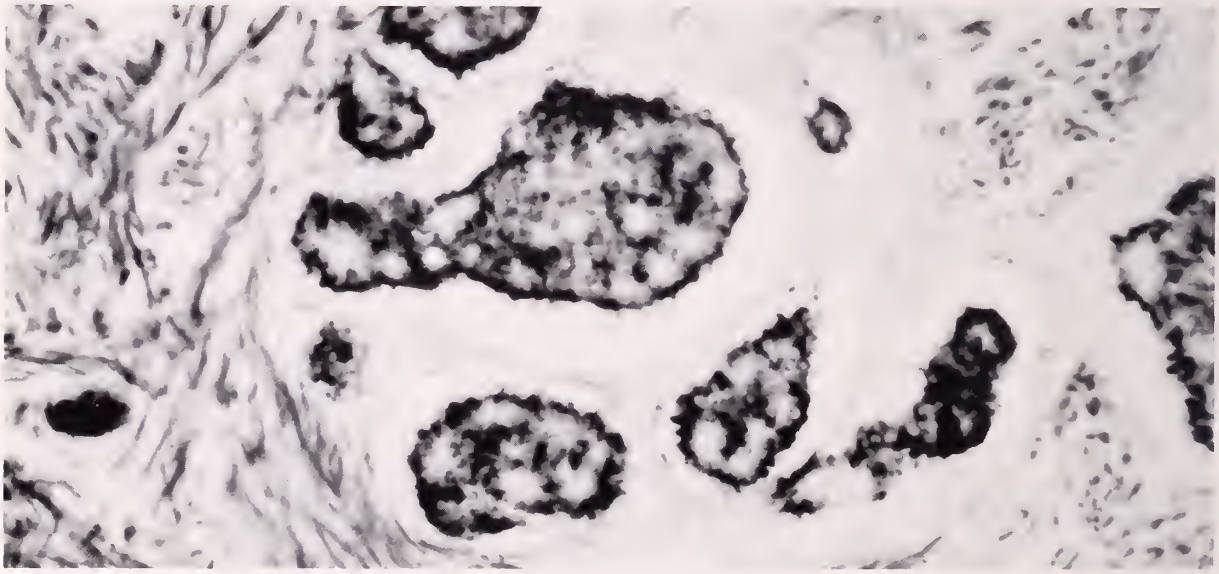

**Figure 6. The outer rims of acini showing black due to positive argentaffin staining (Fontana-Masson's stain).**

**TABLE**

**Difference Between Primary and Metastatic Ovarian Carcinoids**

| Primary | Metastatic |
|---|---|
| 1. Unilateral | 1. Bilateral |
| 2. Associated with teratomatous elements | 2. Not associated with teratomatous elements |
| 3. No gastrointestinal primary | 3. Associated with gastrointestinal primary or primary elsewhere |
| 4. Carcinoid syndrome disappears within 24 hours after operation along with return to normal 24-hour urinary 5-HIAA | 4. Carcinoid syndrome persists after operation and urinary 5-HIAA remains or becomes positive within several months postoperatively |
| 5. Peritoneal implants absent | 5. Peritoneal implants almost always present |
| 6. Cut surface — typical homogenous appearance without nodules | 6. Cut surface — confluence of bright yellow nodules |

The prognosis of metastatic ovarian carcinoids is poor. In their review of 35 cases, Robboy *et al.*[24] reported that 33 per cent of patients were dead within one year and 75 per cent within four years of discovery of tumors in the ovaries.

If an ovarian carcinoid is diagnosed or suspected, the intestine should be explored for a primary lesion. If an intestinal tumor is found, it should be removed along with regional lymph nodes and ovarian tumors. Postoperatively, if symptoms and signs of carcinoid syndrome persist or urinary 5-hydroxy-indole acetic acid remains elevated, a residual or recurrent tumor is suspected. These cases may be treated with chemotherapy.[24]

**Acknowledgement**

The authors are indebted to E. de la Pena, M. D., Department of Pathology, Veterans Administration Hospital, Clarksburg, West Virginia, for her help in preparation of this article, and to Daniel Phares, M. T. (ASCP), and Miss Kay Sprouse, United Hospital Center, Inc., Clarksburg, for their help in photography and typing, respectively.

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# 1979 Student Research Convocation West Virginia University School Of Medicine

THE Fifteenth Annual Medical Student Research Convocation was held on March 29, 1979. These Convocations are convened in order that our medical students can present the results of their research activities in competition for the Edward J. Van Liere Award, consisting of a plaque and $100. This award was established in 1965 by action of the Faculty of the School of Medicine to recognize the research efforts of our medical students and to honor the late Dr. Edward J. Van Liere, Dean Emeritus of the West Virginia University Medical School, who served as Chairman of the Department of Physiology from 1921-1955 and as Dean of the School of Medicine from 1935-1961. The winner of the Edward J. Van Liere Award this year was Roberta E. Galford, Medicine II. The first runner-up and winner of $50 was Roger A. Lewis, Medicine III, and the second runner-up and winner of $25 was Thomas T. Croghan, Medicine II. Samuel S. Thatcher, Medicine II, was ineligible to compete for the Van Liere Award because his research was done in partial fulfillment of the requirements for the Ph. D. degree. Publication of the abstracts of the oral presentations in The West Virginia Medical Journal constitutes an important, and greatly appreciated, recognition of the research efforts of our medical students.

W. E. Gladfelter, Ph. D., *Chairman*
Medical Student Research
Convocation Committee

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# Cadmium Levels In Tissues At Autopsy And Their Relationship To Hypertension

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EVIDENCE indicates that cadmium, perhaps interacting with zinc, lead, and selenium, may act as an etiological agent for some form(s) of essential hypertension. An animal model for cadmium-induced hypertension is well established but epidemiological evidence is inconsistent.

In one experiment we analyzed cadaver liver and kidney cortex by atomic absorption spectrophotometry for Cd, Zn, and Pb and by fluorometry for Se. Applying analysis of covariance, we tried to determine if the concentrations of those elements or their various ratios were related to certain indices of hypertension, and if so, what equation best described that relationship. We found no statistically-significant relationships at the $p<.05$ level.

A relationship of $p<.08$ ($N=34$) between the level of cadmium in the kidney cortex and the heart weight to body weight ratio was found. This finding, in view of certain problems encountered during the first experiment, prompted us to do a follow-up study. In the follow-up study, analysis of an additional 28 cases failed to substantiate this suggested relationship. Additionally, when the data from all cases were pooled, no statistically-significant relationship was found between kidney cortex cadmium level and indices of hypertension (heart weight, heart weight to body weight ratio, and heart weight to body length ratio).

This study was a collaborative project involving the Department of Pathology, School of Medicine, and the Department of Animal and Veterinary Science, School of Agriculture and Forestry, of West Virginia University.

# Failure of Indomethacin To Induce Closure Or Patent Ductus Arteriosus In Preterm Infants

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THE objective of this study was to determine the efficacy of indomethacin in closure of the patent ductus arteriosus complicating respiratory distress syndrome in premature infants.

Twenty-two premature infants with a birth weight under 1750 grams and with at least a grade II/VI systolic or continuous cardiac murmur suggestive of PDA were selected for the study. Gestational age ranged from 27 to 34 weeks. Confirmatory studies of a significant left to right shunt, including heart size, heart rate, and left atrial to aortic root size ratio, were performed. Contraindications for the study included pre-existing renal failure, hyperbilirubinemia, bleeding disorders, and necrotizing enterocolitis. The infants were divided randomly into two groups—a treatment group, which received 0.2 mg/kg of indomethacin on two consecutive days, and a control group, which received a placebo in the same manner. The study was conducted in a double blind fashion. Evaluation of the left to right shunt was performed for 72 hours following treatment. Signs of toxicity also were followed for 72 hours. Criteria for success included either complete cessation of the murmur or a decrease in the murmur of at least two grades, return of the heart rate and left atrial-to-aortic-root-size ratio to normal, and removal from ventilatory assistance.

Three of the twelve infants in the treatment group and two of the ten in the control group met the criteria of success. This difference is not statistically significant ($p>.10$). No significant adverse reactions were detected.

# The Effect of Insulin on Cell Growth Kinetics

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THE effect of insulin on the cell cycle of baby hamster kidney (BHK) fibroblasts has been investigated. Interest in the effects of insulin was stimulated by its growth-promoting action in other tissue culture cells, most notably Chick embryo fibroblasts, and because it is a component of serum which has definite growth-promoting properties in BHK. Attention was focused on the $G_1$ phase of the cycle, since the time it takes to traverse this phase determines the length of the cell cycle and therefore the rate of cell proliferation. BHK fibroblasts in tissue culture were brought to quiescence in $G_1$ by incubation in serum-deficient medium. Cell growth was initiated by addition of serum to the quiescent cultures and was monitored by the amount of $^3$H-thymidine incorporated into DNA during the DNA synthetic (S) phase which follows $G_1$. Increasing the concentration of serum added to the quiescent cells from 1% through 10%, increased the rate at which the cells entered S phase ($G_0$ to S transit time decrease). Pretreatment of the quiescent cells with insulin ($10^{-6}$M) for 10 hours decreased the $G_0$ to S transit time by 2 to 6 hours, depending on the serum concentration. To determine if insulin had any effect on the arrest of cell growth in $G_1$, the decrease in the incorporation of $^3$H-thymidine into DNA was monitored after placing proliferating cells in serum-deficient plus or minus insulin. Insulin had no effect on the kinetics of cell-growth arrest. Since $G_0$ to S transit is dependent on protein synthesis, the effect of insulin on protein synthesis under conditions identical to those above was examined. Insulin increased both the amount of protein per cell and the rate of $^3$H-leucine incorporation. By increasing cell mass, as measured by protein per cell, insulin can accelerate $G_0$ to S transition time in BHK fibroblasts.

(This investigation was supported by Grant Number 5 R25 CA19530-02, awarded by the National Cancer Institute, DHEW.)

# Autonomic Neuropathy In Uremic Patients

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THE purpose of this study was to identify and evaluate autonomic neuropathy in uremic patients.

Eight uremic patients were studied, 5 men and 3 women (mean age = 44 years; mean duration of dialysis = 21 months).

The subjects were tested for their heart-rate responses to standing and to deep breathing. The heart-rate response to standing is a characteristic tachycardia (maximal at around the 15th beat after standing) followed by a bradycardia (maximal at the 30th beat after standing). Thus, a subject's response to standing may be expressed as a "30:15 ratio". The heart-rate response to deep breathing is an increased rate upon inspiration and a decreased rate upon expiration. Subjects' response to deep breathing may be expressed as a ratio of their longest beat over their shortest beat. In both cases, the smaller the ratio, the less their autonomic nervous system was able to respond to the stimulus.

The mean values for the 30:15 ratio were $1.04 \pm .06$ in the uremic patients and $1.49 \pm .45$ in the normals ($p<.01$). The mean values for the deep breathing ratio were $1.16 \pm .13$ in the uremic patients and $1.45 \pm .17$ in the normals ($p<.01$).

In summary, uremic patients have abnormal responses of cardiac cycle length to different standardized stimuli: deep breathing, and the act of standing. These tests may prove to be a simple and sensitive index of autonomic neuropathy in dialysis patients.

# Causes of Death in Patients With Leukemia

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BILLY E. KIRK, Ph. D.

A retrospective study of 151 patients with both acute and chronic leukemia treated at West Virginia University Hospital from 1968 to 1977 was reviewed to determine the cause of death. Data from their last hospitalization, including clinical records and laboratory results, and postmortem examination (if performed) were collected and analyzed.

It was determined that infection, followed by hemorrhage and organ failure, were the leading causes of death. Infection alone or in combination with other factors accounted for 48.2 per cent of the deaths. The most common microorganisms isolated were gram-negative bacilli, which were involved in 57.2 per cent of the systemic infections, 23.1 per cent of the pulmonary infections and 60 per cent of the other infections. These gram-negative organisms included Pseudomonas aeruginosa, Escherichia coli and Klebsiella pneumonia. Gram-positive bacteria were found in 25.7 per cent of the systemic and 30.8 per cent of the pulmonary infections, with Staphylococcus aureus the most frequently isolated. Eighteen per cent of all infections were caused by multiple organisms; in 11.3 per cent of the cases, a fungus or virus was isolated. Hemorrhage alone or in combination led to 32.8 per cent of the deaths. The most common sites for hemorrhage were gastrointestinal (16.7 per cent) and intracranial (10.1 per cent). Seventy-nine per cent of the patients who hemorrhaged had a terminal platelet count below $20,000/mm^3$. In 19.0 per cent of the cases, the cause of death was attributed to organ failure. The heart (36.4 per cent), lungs (18.2 per cent) and liver (18.2 per cent) were the most often involved.

# Medical Communications From A University Hospital

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PHYSICIANS in West Virginia often have made complaints that the WVU Hospital staff is laggard in reporting back findings concerning patients referred to WVU. This study was designed to determine whether or not these accusations are true, and if so, what might be done about them. The study was conducted in two parts. The first dealt with 130 inpatients. Data were obtained on these patients by periodic chart reviewing. The second part of the study was involved with outpatient clinic referrals. Information was obtained by interviews with the patient prior to the visit and a questionnaire mailed to the referring physician. Only 57 per cent of inpatient visits studied had anything mailed back to the family or referring physician. In the outpatient clinic 52 per cent of patients had some type of correspondence (either mailing or telephone) within three weeks. Of the new patients seen, however, only 32 per cent of these had any correspondence during the three weeks following the visit.

Even though the study was crude and simple, it has fulfilled its purpose. The major disclaimer of this study is that the three-week time limit allowed for the outpatient survey often is too short for correspondence to be sent, either because of a heavy workload, poor-quality residents or secretarial delays. However, three weeks is a long time for the referring physician to wait for information, especially if the patient returns for a visit in the meantime.

Results show that a problem does exist and problem areas can be located. The main problem with the inpatient communication system is the frequent failure in listing the referring or family physician on the admission sheet. Also, delays in dictating, typing and signing of the letters could be improved. With the outpatient study one can only say that letters are not being received by referring physicians.

# Circulating Immune Complexes In Head And Neck Cancer Patients

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THE aims of this project were to isolate and purify circulating immune complexes from patients with head and neck carcinoma, and to determine if these complexes could act as "blocking factors" to cause impaired cell-mediated immunity (CMI) in these patients.

Sera were obtained and pooled from patients with head and neck squamous cell carcinoma who previously had been determined to have high levels of circulating immune complexes. Sera, to be used as control, were also obtained from normal, healthy volunteers.

Each sera pool was fractionated on a Sephadex G-200 column. The first-eluted peak of each sera was then submitted to affinity chromatography on a protein A-Sepharose column. The bound protein fraction of each sera (designated as Protein-A peak II), was eluted with 1M acetic acid, neutralized, and then concentrated. All of the eluted peaks, from the G-200 and Protein-A columns, were subjected to the Raji cell (immunofluorescence) test.

Protein-A peak II of the head and neck carcinoma sera, shown to contain high levels of circulating immune complexes, and the corresponding peak of the normal human sera were tested in vitro to determine their effects on the cell-mediated immune response of lymphocyte migration inhibition.

As a result of this project, circulating immune complexes were isolated and partially purified, and high levels of these complexes were shown to be present in sera of head and neck cancer patients, but not in sera of normal, healthy individuals. Preliminary results indicate that circulating immune complexes may be effective in partially blocking the cell-mediated immune response of lymphocyte migration inhibition in head and neck cancer patients.

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# Histochemical Compartmentalization Of The Rat Preovulatory Follicle

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THE 18 hours prior to ovulation are a time of major transition in the preovulatory ovarian follicle. The central event of this period is the rise of luteinizing hormone (LH) which either directly or indirectly results in the resumption of meiosis and luteinization of granulosa cells. While both the circulating hormonal composite and morphology of the preovulatory follicle have been studied, many questions remain concerning correlation of the above. Histochemistry has the unique advantage of *in situ* localization of metabolic products and/or events and provides a link between morphology and biochemistry of the follicular compartments.

Rats were killed at 12:00, 15:00, and 20:00 hours of proestrus to study the histochemical changes that occur around the LH surge which, in the rat, occurs in the mid-afternoon of proestrus. Ovaries were quickly removed and frozen to be later sectioned and assayed by histochemical techniques for intermediate metabolism, steroid biosynthesis and hydrolase activity.

The theca interna at all times was highly reactive for $\Delta^5$-3$\beta$-steroid dehydrogenase (3$\beta$-HSD) and other metabolic enzymes, especially $\beta$-hydroxybuytric acid dehydrogenase. This layer was weakly reactive to acid phosphatase. The mural granulosa layer, while unreactive in small follicles, was reactive in the preovulatory follicle. The cumulus oophorus was markedly different from the granulosa cells, showing little reactivity with most substrates studied. However, this compartment was highly positive for acid phosphatase.

These results further confirm the mural granulosa cells' capacity for steroidogenesis and indicate this capability before the LH surge. The differential reactivity of the cumulus oophorus further implicates these cells in the removal of inhibitory influences necessary for the reinitiation of meiosis.

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# Medical Grand Rounds

**From the West Virginia University Hospital**

Edited By
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*Associate Professor of Medicine*

## Rheumatoid Variants

Discussant:
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*The rheumatoid variants are a group of arthritic disorders with common features including prominent involvement of the spine, asymmetrical peripheral arthritis, high association with the B27 human leukocyte antigen, and similar response to treatment. The variants—ankylosing spondylitis, Reiter's syndrome, psoriatic arthritis and the arthritis of inflammatory bowel disease—are more prevalent than is commonly realized and may be confused with other arthritic disorders.*

THE rheumatoid variants include ankylosing spondylitis, Reiter's syndrome, psoriatic arthritis and the arthritis associated with inflammatory bowel disease. These disorders have been classified together because of the following common features:

1. Male predominance in many of the diseases.

2. Prominent involvement of the spine: the sacroiliac joints, diarthrodial joints of the spine and vertebral bodies with a peculiar fusion of the vertebral bodies by calcification of adjacent structures.

3. Asymmetrical peripheral arthritis, typically involving few joints and the lower extremities more than the upper. There is frequent development of "sausage" digits—diffuse swelling of a whole finger or toe, and inflammation of nonarticular surfaces, especially bony prominences such as tendon insertions.

4. Seronegativity—the incidence of positive rheumatoid factor is no greater than that found in the general population.

5. Frequent association with the human leukocyte antigen B27.

In spite of the term rheumatoid variants, these disorders have little resemblance to classic rheumatoid arthritis: the clinical picture, laboratory findings, radiologic features, and pathophysiology are completely different.

### Ankylosing Spondylitis

*Incidence*

Ankylosing spondylitis (AS) is a common cause of back pain in young men. In one large military hospital during World War II, 18 per cent of soldiers with chronic backache were identified as having ankylosing spondylitis.[1] In Bristol, England, it was found in 1/2000 of the general population.[2]

The observation that more than 85 per cent of patients with AS possess a certain HLA type (B27) has led to further studies which suggest that the true incidence may be as great as 1.5 per cent of the general population.[3,4] Two separate series have examined apparently normal, B27-positive individuals and found that 20 per cent could be classified as having mild to moderate ankylosing spondylitis. Admittedly, many of these patients had mild disease which could only be diagnosed by subtle clinical findings and x-ray changes.

Interestingly, one half of the affected individuals were females, whereas ankylosing spondylitis is generally considered to be a disease of males with an accepted male-to-female ratio from

4:1 to 10:1. Fusion of the entire spine seems much less common in women, but sacroiliitis (disease confined to the sacroiliac joints) is being increasingly recognized in women as a cause of chronic low back pain.

*Clinical*

The typical patient with ankylosing spondylitis is a young male 20-40 years of age. Generally, the disease begins with low back pain. This is usually insidious in onset although 20 per cent of patients may have an abrupt, severe onset. Initially, the back pain is intermittent but gradually becomes constant over a period of months to years. One of the hallmarks of the disease is *rest pain*. Unlike the patient with mechanical back pain who obtains relief with rest, AS patients find that they suffer more with inactivity, with night pain occurring commonly. Morning pain and stiffness last for hours.

The disease may remain confined to the sacroiliac area or it may extend slowly up the spine with eventual fusion of the entire vertebral column. Fusion relieves the pain, but the back is, of course, immobile. This process may occur over 20 years, but occasionally is complete within a few years. The patient flexes his spine, which relieves the pain, but eventually fusion occurs in this less-than-functional position. The final outcome is a classic picture in medicine: forward craning of the neck, dorsal kyphosis, rounding of the shoulders, loss of the normal lumbar lordosis, wasting of the buttocks, ballooning of the abdomen, broad-based gait (often with knees bent due to hip contractures). Amazingly, occasional patients with far-advanced, typical spondylitis deny ever experiencing significant back pain and are unaware of feeling stiff.

In perhaps 10 per cent of patients the disease presents with pain which mimics sciatica with pain down the posterior thigh which is increased by coughing or sneezing.[7] Unlike typical sciatica, however, the pain rarely goes further down the leg than the popliteal fossa and is not associated with paresthesias or weakness. In contrast to sciatica, it is relieved by activity, increased by bed rest, and tends to shift from side to side. Like sciatica, however, pain in the posterior thigh and lumbar spine may occur with the straight leg-raise maneuver.

About 20 per cent of patients present with peripheral arthritis as their initial symptom.[8] Usually, the arthritis involves the legs. Pain in areas around tendon origins and insertions such as the heel, plantar surface, Achilles tendon and ischial tuberosities is also characteristic of the disease. The peripheral joints, particularly those close to the axial skeleton such as hips, shoulders, manubriosternal joint and symphysis pubis, are commonly involved, often with permanent damage. Other joints may be involved but usually escape permanent damage. The peripheral arthritis in any individual joint may resemble seronegative rheumatoid arthritis.

Other less common modes of presentation include acute iritis and fever of unknown origin.

The length of time between presentation and diagnosis may be prolonged,[9] but the family history can be quite helpful in making an early diagnosis. The disease appears to be 30 times more prevalent in families in which one member has AS.[10]

*Physical findings*

Tenderness over the sacroiliac (SI) joints, especially the lower portion, is a common finding, but tenderness may result simply from mechanical injury to the muscles that insert in this area.

A variety of maneuvers may aid in the diagnosis of ankylosing spondylitis by putting stress on the SI joints. Patrick's test not only stresses the hip but also causes pain in the SI joint. Gaenslen's test, performed by flexing one leg to the chest with the knee bent and hyperextending the opposite leg over the side of the examination table, often causes pain in the SI joint. Downward pressure on the iliac crest while the patient is in the lateral position may also stress the SI joint.

Involvement of the lumbar spine may be indicated by the production of pain with flexion, extension and lateral motion; pain secondary to a ruptured disc causes pain mainly with flexion.

Chest expansion may be decreased early. The normal expansion for a young male should be a minimum of 2.5 cm. at the fourth intercostal space.

*Extra-articular manifestations*

*Pulmonary*: The limitation of normal chest expansion may result in restrictive lung disease. Cystic changes in the apices are seen in perhaps 1.3 per cent of patients.[11]

*Eyes*: Acute uveitis occurs in about 25 per cent of patients with ankylosing spondylitis[12] and may precede other manifestions by years. This complication may be more frequent in patients with peripheral arthritis. Studies in ophthalmology clinics of patients with acute anterior uveitis have established that about half of such individuals have the B27 marker,[13] and a variable percen-

tage of these patients can be identified as having obvious or occult AS. Women with B27 antigens appear to be more likely to present with acute anterior uveitis; men, with ankylosing spondylitis.

*Heart*: Aortic insufficiency secondary to dilation of the aortic root is a well-recognized complication of AS and develops in up to 10-12 per cent of those followed up to 30 years.[14] The aortic lesion resembles syphilitic aortitis with inflammation about the vasa vasorum; unlike syphilis, it extends below the aortic valve and causes a characteristic bump. This is easily recognized at cardiac catheterization. This complication also appears to be more common in patients with peripheral arthritis.

Fracture of the rigid, yet brittle, spinal column or atlanto-axial subluxation may occur following trauma. This rare complication can result in injury to the spinal cord with paralysis or death. A *cauda equina* syndrome has also been described.[15]

*Amyloidosis*: This complication occurs in about eight per cent of patients with chronic AS and is generally first suspected when proteinuria develops.[16]

*Radiographic changes*

A patient may have low back pain, sacroiliac tenderness and limitation of motion for two or three years before the typical x-ray changes develop. Bone scans are positive earlier but are expensive and difficult to interpret. The earliest x-ray change is irregularity and widening of the sacroiliac joint. Later, there is sclerosis of the joint margins and eventual fusion. In the lumbar spine, "squaring" of the vertebral body is caused by erosion of the upper and lower edges of each bone. After this, calcification of structures adjacent to the vertebra occurs. With formation of thin, bony bridges at multiple levels the so-called "bamboo" spine is seen. Ankylosis of the diarthrodial joints also occurs. Bony prominences such as the ischial tuberosities or areas of tendon insertion may show fluffy new bone deposition.

*Laboratory findings*

The sedimentation rate is increased in about 80 per cent of patients but correlates poorly with disease activity. The B27 antigen occurs in 85-95 per cent of patients (normally, seven to eight per cent in the general population). Rheumatoid factor is typically absent in AS. Although there are reports of the presence of IgG rheumatoid factor in some patients, the significance of this finding is uncertain.[17] In contrast to classic rheumatoid arthritis, the complement level in the synovial fluid is high or normal when adjusted for the protein content.[18]

*Therapy*

The treatment of the disease consists of education, exercise, medication and surgery. Generally, the prognosis is reasonably good with the majority of patients able to continue long-term employment.

The patient should be encouraged to maintain good posture and to avoid excessive flexion of the lumbar spine. Sleeping without a pillow is recommended to avoid fusion of the neck in flexion, and exercises to maintain active motion in the back and the chest are important. Because of the possibility of restrictive lung disease from AS, smoking should be strongly discouraged.

*Medications*

For reasons which are not clear, agents such as Indocin and phenylbutasone have been demonstrated to be superior to aspirin in 90 per cent of patients with AS. Because of its potential for inducing bone marrow toxicity phenylbutasone is used less frequently today. Most of the newer agents (e.g., Motrin, Nalfon, Tolectin, Naprosyn, Clinoril) have been used with success in the disease and may have advantages in some cases because of decreased gastrointestinal and central nervous system side effects. Radiation to the spine was used in the past but has been associated with the development of leukemia in some patients.[19] It is still used in some countries for patients who are refractory to all other treatment.

*Surgery*

In the patient with incapacitating back deformity, spinal osteotomy is occasionally performed. This procedure is technically difficult, and patients are prone to develop complications. For patients with severe hip and knee disease, total joint replacement may be indicated.

**Reiter's Syndrome**

*Incidence*

This appears to be a very common disorder in young males and was found in 4/100,000 men/year over a 10-year study in the US Navy.[20] In a study at Wilford Hall it was the most common cause of arthritis in young men—six times as common as rheumatoid arthritis.[21] The incidence of Reiter's following nonspecific urethritis has been estimated to be as high as one per cent.[22] One of the most well-documented outbreaks of Reiter's occurred after a shigella epidemic aboard

a navy vessel; it was estimated that about 20 per cent of individuals who were B27 positive and contracted dysentery developed the syndrome.[23]

*Clinical*

Reiter's is overwhelmingly a disease of young men. The classic tetrad includes: urethritis, arthritis, conjunctivitis, and skin or mucosal lesions. Often, not all features are present.

The disease occurs in two forms: episodic, often following sexual activity; and epidemic, which typically follows an outbreak of dysentery —usually secondary to Shigella or Yersinia species. In the episodic form Chlamydia, Mycoplasma and occasionally Neisseria gonorrhea have been implicated. Cases of Reiter's in women and children, though rare, are sometimes seen following outbreaks of dysentery.

The incubation period after the immunological insult is typically one to two weeks. The patient may appear quite ill and run a high fever. Urethritis is usually the first manifestation, but may be so minor that the patient hardly notices it. Prostatitis is frequent. Hemorrhagic cystitis with bleeding ulceration of the bladder wall occasionally occurs, and rare cases of hydronephrosis have been reported. The arthritis generally involves the lower extremities more than the upper. It may begin as a monoarthritis, and usually only a few joints are involved. Involvement of the interphalangeal (IP) joints of the toes is characteristic—often with "sausage toes." Achilles tendinitis and plantar fasciitis are also common. Back pain may occur any time during the disease.

The earliest eye involvement is usually conjunctivitis. Iritis occurs with the first attack in 5-10 per cent of cases and eventually in 20-50 per cent of patients. Skin lesions may vary: circinate balanitis, a painless, shallow, circular or serpiginous lesion on the glans penis; keratoderma blennorrhagica, a pustular or hyperkeratotic lesion on the soles and palms which resembles pustular psoriasis; and painless ulcerations in the mouth. Diarrhea can, of course, be part of the picture with Reiter's. Cardiovascular, pulmonary and neurologic symptoms are infrequent.

*Radiologic appearance*

X-ray changes usually become apparent only after several years, with osteoporosis about an affected joint the earliest sign. Later, periosteal proliferation, especially in the small joints of the feet, may develop along with erosive changes. Periosteal new bone also is likely to develop at the Achilles insertion and on the plantar surface. Involvement of the sacroiliac joints may be strikingly asymmetrical in contrast to AS. Involvement of the remainder of the spine also tends to be more asymmetrical than ankylosing spondylitis.

*Laboratory*

Anemia and elevated sedimentation rate are common. The B27 antigen is found in more than 90 per cent of patients with the disease.[24] White cells in the urine often reflect urethritis. The synovial fluid contains 2,000 to 100,000 WBCs, and "Reiter cells" (macrophages ingesting a PMN) may be seen. The complement level in synovial fluid is normal or high when adjusted for protein content.[18]

*Course of the disease and therapy*

The initial attack usually resolves within a few weeks to months. Although there is little evidence that either antibiotics or anti-inflammatory agents hasten the resolution of the disease, agents such as Indocin and the other nonsteroidal agents usually relieve the arthritis. Recurrences are common, however—up to 15 per cent per patient per year.

In Good's experience, 24 per cent of patients had evidence of active disease at two-years follow-up.[25] Thus, Reiter's syndrome is a chronic disorder. A 20-year follow-up of a large outbreak of Reiter's syndrome which followed an epidemic of dysentery in Finland during World War II reflects this. Of 100 patients available for follow-up at 20 years, 80 still had evidence of active disease, 32 had AS, 48 had peripheral arthritis, seven had recurrent uveitis, two had aortic insufficiency, and a total of 40 were unable to work.[26] A 13-year follow-up of the previously-cited shipboard outbreak of Reiter's demonstrated that four of five patients continued to have active disease. Only the patient who was B27 negative was free of disease.[23]

Sacroiliac involvement occurs in 20-50 per cent of patients followed for an extended time. A lesser number develop full-blown spondylitis.

**Postinfectious Arthritis**

It has been recognized for years that aseptic arthritis may follow bacterial infections. Acute rheumatic fever which follows streptococcal pharyngitis is, of course, the classic example, but many other organisms are capable of causing arthritis. Infections with Salmonella and Yersinia have been most frequently associated with postinfectious arthritis. These arthritides typically do not fulfill the complete criteria for Reiter's syndrome. It has been established, however, that at

least 90 per cent of patients developing such syndromes (exclusive of rheumatic fever) have the B27 gene.

### Psoriatic Arthritis

*Incidence*

Inflammatory arthritis occurs in five to seven per cent of patients with psoriasis.

*Clinical*

Wright and Moll[27] have divided psoriatic arthritis into five subgroups. The most common (70 per cent) form is asymmetric and oligoarticular. Patients with psoriasis, symmetrical polyarthritis and a positive rheumatoid factor are considered by convention to have two diseases—psoriasis and rheumatoid arthritis. The incidence of seropositive RA does not appear increased in psoriasis. In patients with an abrupt onset the disease may resemble acute, gouty arthritis. Other patients may present with gradual involvement of multiple DIPs. Psoriatic skin changes may be scant in a patient with arthritis. It is important to check the so-called hidden areas for changes: scalp, nails, umbilicus and gluteal folds. Joint complaints develop after skin disease in about two thirds of patients and before in the remainder.

*Radiographic changes*

Changes suggestive of psoriatic arthritis include: destructive changes in the distal IP joint, osteolysis of the distal tufts of the fingers or toes, bony proliferation at the base of the distal phalanges, tendency to ankylosis—often with maintenance of the joint space, lack of osteoporosis in juxta-articular bone, "pencil-cup" deformity, whiskering of bony protuberances with fluffy subperiosteal deposition of new bone, spinal involvement with sacroiliitis (often asymmetrical) and involvement of the rest of the spine. Syndesmophytes are often nonmarginal and have heavier calcification than seen in typical AS.

*Laboratory data*

These patients are by definition rheumatoid factor negative. Mild anemia and elevated sedimentation rates are common. IgA levels are elevated in approximately two thirds of patients with psoriatic arthritis, but the significance of this is unknown. The frequency of the B27 antigen in patients who have psoriasis but no arthritis is not increased. (HLA antigens 17, 16 and 13 are increased.) In patients *with* psoriasis and arthritis the B27 is positive in about 36 per cent; patients with spinal disease above the SI joints were B27 positive in 91 per cent of the cases.[28]

*Treatment*

Salicylates and the nonsteroidal, anti-inflammatory agents are the mainstays of therapy of the joint disease; gold may be necessary in more severe cases. Methotrexate has been used for refractory disease.

### Arthritis Associated with Inflammatory Bowel Disease

*Incidence*

Inflammatory arthritis occurs in 20-22 per cent of patients with regional enteritis, and in 12 per cent with ulcerative colitis. It may be divided into two types: peripheral arthritis and spondylitis.[29]

*Clinical*

The peripheral arthritis may have a sudden onset with severe inflammation. Typically, the pattern is oligoarticular with lower extremities involved more than upper. Seventy-five per cent of attacks last less than two months, and the arthritis is rarely crippling. X-ray changes usually consist only of soft-tissue swelling. Most patients develop arthritis only after their bowel disease becomes obvious (90 per cent), and the activity of the bowel disease parallels the activity of the arthritis in 60-75 per cent of patients. If colectomy is indicated in ulcerative colitis for other reasons, the arthritis often improves. In regional enteritis relief of arthritis following surgery is less predictable, perhaps reflecting the difficulty of resecting all of the involved bowel.

Spondylitis occurs in five to seven per cent of patients, an incidence far above that expected in the general population. Back disease commonly occurs years before the development of bowel symptoms. There appears to be no correlation between back and bowel symptoms, and colectomy in ulcerative colitis does not provide relief for these patients. As might be expected, the incidence of B27 positivity is increased to 75 per cent in patients with spondylitis.

*Treatment*

Therapy with salicylates or nonsteroidals usually controls the arthritis reasonably well, but may produce gastrointestinal toxicity.

### Mechanism of the B27 Arthritides

The reason for the increased incidence of arthritis in patients with B27 antigen is not clear. In some of the variants it seems that the B27 antigen is a necessary condition, but another insult (infection in Reiter's, skin disease in psoriasis, or inflammation of the bowel) is required to trigger the arthritis. Several theories have been

suggested to explain the unusual susceptibility of patients who have the B27 antigen. (1) There may be similarity between a B27-associated antigen and an antigen on an infectious agent. This seems untenable considering the multiplicity of organisms which have been associated with Reiter's syndrome; (2) The B27 antigen acts as a receptor for an infectious agent. The same arguments apply, and (3) The B27 antigen is linked with an immune response gene. In this case the B27 antigen would only act as a marker. Although this is the most popular theory, it remains unproven.

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***A Continuing Medical Education Event!***

# The 13th Mid-Winter Clinical Conference

Holiday Inn Charleston House

600 Kanawha Boulevard, East, Charleston, W. Va.

**January 25-27, 1980**

**WEST VIRGINIA STATE MEDICAL ASSOCIATION**
**WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE**
**MARSHALL UNIVERSITY SCHOOL OF MEDICINE**

## WATCH THE JOURNAL FOR PROGRAM DETAILS

THE PROGRAM CO-CHAIRMEN again are Ralph H. Nestmann, M. D., and Joseph T. Skaggs, M. D., both of Charleston. Also on the Program Committee are William O. McMillan, Jr., M. D., of Charleston, Maurice A. Mufson, M. D., Huntington; Robert L. Smith, M. D., Morgantown, and C. Carl Tully, M. D., South Charleston.

THE REGISTRATION FEE of $25 for the entire conference will be charged all registrants except nurses, medical students, interns and residents. Advance registration is requested, and please make checks payable to "WEST VIRGINIA STATE MEDICAL ASSOCIATION."

ACCREDITATION: Attendance will be acceptable for 13 hours of Category 1 credit toward the Physician's Recognition Award of the American Medical Association; and the program also is expected to be approved for 13 Prescribed hours by the American Academy of Family Physicians.

OVERNIGHT ACCOMMODATIONS: Physicians should communicate directly with the reservation manager of the hotel or motor inn of their choice, with the conference headquarters hotel setting aside rooms for registrants.

FOR ADVANCE REGISTRATION, please complete the form below and mail to: WEST VIRGINIA STATE MEDICAL ASSOCIATION, P. O. BOX 1031, CHARLESTON, W. VA. 25324.

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Please register me for the 13th Mid-Winter Clinical Conference in Charleston, W. Va., January 25-27, 1980. My $25 registration fee is (is not) enclosed.

*Name (please print)* _____ *Specialty* _____

*Address* _____ *City* _____

*A message from . . .*

*The President*

## HOSPITAL ASSOCIATION FRIENDS

Don't get me wrong. I think there are very significant differences between some aims of medical staffs and the boards of hospitals.

But these differences are not new. We have managed to live with these for a generation or two and now is not the time even to discuss them.

I would like to point out that we share many identical aims with hospital boards and with the American Hospital Association. A partial catalogue of the broader aims among these must start with the maintenance or improvement of the quality of patient care in the community. In this category we must be alert to: the support of hospital services; our own role in the training of hospital personnel and in the maintenance of their job satisfaction; and our role in the institution's fiscal soundness through timely chart completion and meeting third-party record requirements.

Unhappily, we share many mutual concerns and problems. Malpractice suits with attendant insurance costs and legal nuisance are obvious as is the corresponding need for mutual care and appropriate precautions.

By far the greatest problem we share, however, is the intrusiveness of government. Here is our common adversary. When the cost of compliance with governmental regulations reaches 25 per cent of every hospital budget while we are badgered about and blamed for those very costs, it is time to circle the wagons.

We have done just that in our Voluntary Effort at controlling hospital costs. In spite of the success documented statewide and nationally by that voluntary program, we have been disappointed to observe only renewed efforts at the imposition of crippling mandatory controls rather than expressions of commendation at the success of our efforts.

Such ingratitude only confirms what we already knew—the principal thrust of Administration cost-control proposals is simply CONTROL, total control of the health care system, rather than simply cost control.

Regardless of the outcome of the congressional battle over cost control, the lessons are clear: present government policy is to control medical care totally: administration statements of intention cannot be trusted; government can be expected again and again to grasp for control of medical care; and an alliance between organized medical and organized hospital groups is possible, is effective and is formidable.

The West Virginia State Medical Association enjoys a close and friendly relationship with the West Virginia Hospital Association. Staff of the two organizations are in daily contact with each other. We look forward only to a tightening of that relationship which, we can anticipate with some confidence, will lead to a favorable resolution of those problems besetting both groups and, ultimately, lead to the benefit of the public we serve.

Stephen D. Ward, M.D.

Stephen D. Ward, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

## EDWARD J. VAN LIERE, M. D., R. I. P., 1895-1979

To be 83 years of age and vital, alert and productive is a fate not bestowed on the ordinary man. But, of course, Ed Van Liere never was an ordinary man.

He died suddenly on September 5th of a coronary occlusion. He had spent that day working, as usual, at his office.

He did slow down in his later years. It was, no doubt, something in his physiology for which his ever curious mind had an explanation. Physiology was his vocation; Sherlock Holmes, his avocation. There are some who would argue the reverse was true.

Ed was born in Kenosha, Wisconsin, and had a Master's Degree in Science by the time he was 21. At 25 he had his M. D. from Harvard and by age 40 he was Dean at West Virginia University Medical School which had turned to him as it was about to lose its accreditation.

Under his leadership WVU retrieved its accreditation and went on to expand into a full four-year school. He retired as Dean after 25 years but continued actively teaching for another five years. For the last 13 years he had consulted as Professor Emeritus and otherwise devoted himself to writing and editing.

His name first appeared on the masthead of *The West Virginia Medical Journal* in 1938 and remained a fixture for 41 years—an unprecedented tenure for this or probably any other journal. He authored over 250 *Journal* editorials, mostly scientific but some pure whimsy. Two hundred and thirty-five scientific articles and nine books bear his signature.

His courtly bearing and proper manners gave one the initial impression of stiffness or remoteness. His dancing eyes wrinkling at the corners quickly betrayed, however, his sparkling good humor and quick wit.

Ed was, above all, a kind and gentle man. His was a rare combination of personal attributes: academic brilliance, the courage to lead, an endless capacity for work, an irrepressible curiosity, wit, good humor and that ever present gentleness.

He was not cheated in years; nor were we cheated in our share of him. But the very good fortune we have enjoyed in that long and rewarding experience in his company only deepens our sense of loss without him.

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## CUT REGULATION DOWN TO SIZE

To what extent does "glamorized" federal and state planning boil down to sheer regulation? And to what extent does the regulation lead to costly irregularities?

These are questions with which the West Virginia State Medical Association—and the American Medical Association must grapple constantly, in numerous situations and respects. And various irregularities have been cited by units of the government itself—alongside the pressure for a greater federal role in health.

Consider these examples:

—Legislation recently was offered in Congress —by Representative Tim Lee Carter, Republican of Kentucky and a physician—to keep Food and Drug Administration regulations from overly delaying the approval of new drugs that could benefit patients both medically and economically.

—The General Accounting Office — federal budgetary watchdog—has complained that HEW-funded neighborhood health centers are not reaching most of America's medically underserved, and that HEW has not made sure the centers are put in the neediest areas.

—The GAO has also complained in the last year or so of defects in HEW's Health Maintenance Organization program, including an "ineffective" record in administering and monitoring the loans for HMOs.

—A number of local Health Systems Agencies under the Health Planning Act have protested

HEW's guidelines for implementing the act—partly on the ground that these supersede, and thus duplicate in cost, the guidelines that HSAs have been developing.

HEW, according to an Associated Press story a few months back, misspent more than $5 billion in fiscal 1977 and blamed waste and mismanagement more than fraud and abuse.

Yet, does that estimate—whopping as it is—give the full picture of health expenditure gone astray? What about the cost of supplanting those HSA guidelines? And what about the $5,000 to $20,000 (depending on the project involved) that applicants for a certificate of need must spend on its processing under the Health Planning Act?

In health and other fields, "the sum of the administrative costs of federal regulation (paid by the taxpayer) and the compliance costs (generally passed on to the consumer in the form of higher prices) might (in final figures) top $100 billion" for fiscal 1979, says Murray L. Weidenbaum, Director of the Center for the Study of American Business at Washington University, St. Louis, and a former federal official.

That $100 billion is where supposedly idealistic planning can lead.

Well, what are some of the things the AMA, in particular, has been doing about the examples and problems given above?

—The AMA developed the anti-drug-delay bill introduced by Congressman Carter.

—It has been a cosponsor of a Robert Wood Johnson program to improve medical services in the inner cities of Baltimore, Cincinnati, Milwaukee, St. Louis and San Jose, California.

—The AMA House of Delegates approved more than a year ago "in principle" a National Commission on the Cost of Medical Care recommendation calling in part for "fair market competition between HMOs and other provider and insurance systems."

—The AMA has supported Health Planning Act amendments to make HSAs more independent in their guidelines and operations.

—It has backed "sunset" legislation designed to require regulatory agencies and programs to justify their right to eternity, and make them more accountable to Congress.

Actually, the AMA is so energetic in so many areas of activity that some physicians might be confused as to just what it does. But the $250 regular annual dues are spent as soundly and effectively as possible for the benefit of all physicians and patients — and every doctor should know or be told that.

This is the story Dr. Stephen D. Ward, President of the West Virginia State Medical Association, has been emphasizing in visits to component societies in recent weeks.

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## FTC UNDER ATTACK

The Federal Trade Commission's controversial forays into the medical field have come under strong attack in Congress and in the courts. All physicians would do well to keep themselves informed about this highly important issue.

Spurred by business and professional antagonism toward the FTC, a House appropriations subcommittee approved a money cut halting FTC's so-called consumer protection investigations and two major anti-trust investigations. Sen. James McClure, Idaho Republican, has introduced an amendment that would exempt professional associations from the scope of the anti-trust laws. Support has been building in the Senate for a congressional veto power over FTC decisions.

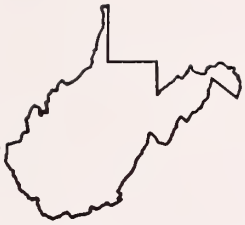
The FTC case before the U. S. Court of Appeals in Washington, D. C. has concerned FTC's trade regulation rule lifting all professional and state restrictions on the advertising of eyeglasses and ophthalmic services. One provision requires that consumers be provided with copies of their prescriptions after eye examinations.

Appealing the rule to the court were the American Optometric Association, nine states, and the American Medical Association. The chief thrust of the complaint by the lawyers, including Newton Minow, counsel for the American Medical Association, was that the FTC was improperly pre-empting state laws, and that the agency does not have statutory authority to move against non-profit associations.

Minow, a few days later, testified before the Senate Commerce subcommittee on Consumer Affairs which had launched a week of hearings on the FTC and complaints about it. He told the senators that the AMA agreed misleading advertising should be considered unlawful. The AMA also has agreed that consumers should be provided copies of their eyeglass prescriptions, Minow said.

But, Minow continued, "The FTC should not be allowed to override the decisions of the duly elected representatives of the people of each state as to what laws are in the best interest of the people of that state." He added that the FTC should not be permitted "to prevent professionals —in this case, physicians—from voluntarily associating together to speak out against false or deceptive advertising which harms the patient."

# GENERAL NEWS



## Conference Program To Include Medical Controversies

Several of the current controversies in medicine will be addressed when the 13th Mid-Winter Clinical Conference convenes in Charleston next January 25-27 at the Holiday Inn Charleston House.

Speaking on a medical controversy, involving diabetes, will be Drs. Margaret J. Albrink of

Margaret J. Albrink, M. D.

Bruce S. Chertow, M. D.

Morgantown and Bruce S. Chertow of Huntington, with a surgical controversy (in the treatment of breast cancer) to be aired by Drs. Kenneth S. Scher of Huntington and Alvin L. Watne of Morgantown.

The four physicians will speak during the Saturday afternoon, January 26, session of the annual continuing medical education event, which is sponsored by the West Virginia State Medical Association and West Virginia and Marshall University Schools of Medicine.

Doctor Albrink's subject will be "The Dietary Treatment of the Adult Onset Diabetic," with Doctor Chertow to talk on "Control of the Blood Sugar—Is That All There Is?"

"Conservative Surgery for Breast Cancer" will be the title of Doctor Scher's presentation, while Doctor Watne will discuss "The Results of Radical Operations for the Cure of Cancer of the Breast."

The conference will begin Friday afternoon, January 25, and continue through noon on Sunday. As in previous years, there will be concurrent sessions for physicians and the general public on Friday evening.

For physicians, there will be an 8 P. M. cardiopulmonary resuscitation (CPR) workshop to be conducted by Emergency Medical Services Operation, Region 34, Inc. (EMSOR, Inc.) of Charleston.

Dr. Jack R. Page, Director of Emergency Services at Charleston Area Medical Center, will open the workshop with a talk on the importance of the CPR program and standardizing CPR techniques.

The remainder of the time will be provided for physicians to work on the "Recording Annie" to see how closely their CPR techniques meet those of the American Heart Association. Instructors and instructor-trainees from the Kanawha County CPR Club will help grade the recording strips and assist the doctors.

EMSOR, Inc., also will have an exhibit on the Advanced Cardiac Life Support Course in conjunction with the workshop.

The Program Committee has cancelled the second Friday evening physicians' workshop which was announced previously.

For the public, also beginning at 8 P. M. Wednesday, there will be an informational and educational session on drug abuse, smoking and alcoholism, featuring three well-known speakers.

A cash bar and hors d'oeuvres will be offered Saturday beginning at 5:30 P. M., but there will

Alvin L. Watne, M. D.

Kenneth S. Scher, M. D.

be no Saturday night banquet and speaker this year, the Program Committee also announced.

### Metabolic Disease Research

Doctor Albrink has been at West Virginia University School of Medicine since 1961, being named Professor of Medicine in 1966.

She has conducted considerable research in the field of metabolic disease and lipid metabolism, and was the 1978 recipient of the McCollum Award from the American Society for Clinical Nutrition.

Certified by the American Board of Nutrition (Clinical Nutrition), Doctor Albrink has served on the editorial boards of the "American Journal of Clinical Nutrition," "Diabetes," and, on two occasions, was Guest Editor for the "American Journal of Clinical Nutrition."

A native of Bisbee, Arizona, she was graduated from Radcliffe College, and received M. S., M. D., and M. P. H. degrees from Yale University. She took postgraduate training at Yale and held several teaching positions there before going to WVU.

In 1977-78, Doctor Albrink was Visiting Scholar, Donner Laboratory, University of California, Berkeley. She was a Councilor of the American Society for Clinical Nutrition from 1973 to 1976.

For the American Heart Association, Doctor Albrink has been a Fellow of the Arteriosclerosis Council and a member of the Council's Executive Committee; a Fellow of the Council on Epidemiology; a member of the Nutrition Committee, and a member of the Committee's Ad Hoc Committee on Recommendations for Treatment of Hyperlipidemia.

As a member of the American Diabetes Association, she has served on the Association's Committee on Food and Nutrition, and the Ad Hoc Committee to Revise Diabetes Exchange Lists.

Doctor Albrink is a board member of the West Virginia Heart Association and the West Virginia Affiliate, American Diabetes Association.

### Heads MU Endocrinology

Doctor Chertow is Professor of Medicine and Chief, Section of Endocrinology and Metabolism, Department of Medicine, at Marshall University School of Medicine.

He also is Chief, Endocrinology Section, Medical Service, and staff physician, nuclear medicine, at the Huntington Veterans Administration Medical Center.

Doctor Chertow is board-certified in Internal Medicine, Endocrinology and Metabolism, and Nuclear Medicine.

He was graduated from the University of Illinois, and received his M. D. degree in 1965 from the University's College of Medicine. He completed postgraduate training at Presbyterian-St. Luke's Hospital in Chicago, followed by two years of service with the U. S. Army at Madigan General Hospital, Fort Lewis, Tacoma, Washington.

In 1972, Doctor Chertow returned to the University of Illinois and Chicago area where he held a variety of teaching and other posts before going to MU in 1978.

He is a board member of the West Virginia Affiliate, American Diabetes Association, and a member of the Executive Committee of the West Virginia Diabetes Control Program Committee. He also is a Fellow of the American College of Physicians, and a member of the Endocrine Society, American Diabetes Association, American Federation for Clinical Research, and the Central and Southern Sugar clubs.

The author of some 45 scientific articles and abstracts, Doctor Chertow this year received First Prize, Marshall University Research Board Award, for medical research published, 1976-1978. He also has been a recipient of the Physician's Recognition Award of the American Medical Association since 1976, and received, in 1976, the Endocrine Society Ayerst Travel Grant Award for the International Congress of Endocrinology.

### New York City Native

Doctor Scher is Assistant Professor of Surgery at MU, a position he has held since 1978. His wife, Dr. Nancy Scher, is Assistant Professor of Medicine at MU.

A native of New York City, Doctor Scher was graduated from Brown University and received his M. D. degree in 1971 from the University of Pennsylvania. He completed postgraduate training, and held several teaching posts, at New York University Medical School in New York City before serving with the U. S. Naval Reserve (active duty) from 1976 to 1978.

Doctor Scher was a Francis Wayland Scholar at Brown University, and is a member of Society of Sigma XI and Phi Beta Kappa.

In Huntington, he serves as a member of the Medical Audit Committee at St. Mary's Hospital and the Tumor Committee at Cabell-Huntington Hospital.

### Heads WVU Surgery

Doctor Watne is Professor and Chairman of Surgery at WVU.

He was Associate Chief Cancer Research Surgeon at Roswell Park Memorial Institute in Buffalo, New York, when he was named, in 1962, as Charleston Foundation Professor of Cancer Research at WVU—a title he still holds. He was appointed Chairman of the Department of Surgery in 1975.

Doctor Watne also serves as Consultant in Surgery at the Veterans Administration Medical Center in Clarksburg, and has been Secretary-Treasurer of the West Virginia Chapter, American College of Surgeons, since 1973. He was Chapter President in 1972-73.

Doctor Watne is a former Chief of Staff at WVU Hospital and is a Past President of the West Virginia Division, American Cancer Society. In 1970, he received the "Excellence in Teaching Award" from WVU medical students.

He currently is President of the Warren H. Cole Society in Chicago. The group is composed of surgical alumni of Chicago's University of Illinois Hospitals, and is named for the prominent surgeon, now retired, who was Doctor Watne's teacher. Doctor Cole headed the medical school's department of surgery for 30 years.

Doctor Watne was Chairman of the State Medical Association's Cancer Committee from 1972 to 1976. Among a variety of current activities and assignments, he is a member of the Editorial Board of the "Journal of Surgical Research;" Chairman of the Surgical Modality Committee, Cancer and Leukemia Group B; and Program Director, Clinical Cancer Education Program Grant, National Cancer Institute, at WVU.

A native of Shabbona, Illinois, Doctor Watne received his M. D. degree in 1952 from the University of Illinois College of Medicine. He interned at Indianapolis (Indiana) General Hospital and was a research assistant and resident in surgery at the University of Illinois and the University's Research and Education Hospital in Chicago.

Doctor Watne received an M. S. degree in Surgery from the University of Illinois in 1956, and went to Roswell Park Memorial Institute in Buffalo in 1958. He was certified in Surgery in 1959.

He is the author or co-author of more than 100 scientific articles, and the author of chapters in five medical textbooks.

### Other Sessions

Friday night's public-session speakers will offer papers on drug and alcohol abuse by physicians, and how patients can be helped to stop smoking, during the Saturday morning session.

The opening session on Friday afternoon will be entitled "Infectious Diseases Update." As announced previously, two of the speakers for this session will be Drs. Robert H. Waldman, WVU Professor and Chairman of Medicine, and John C. Partin, Professor of Pediatrics, College of Medicine, University of Cincinnati, and Director of the Division of Gastroenterology at the University's Children's Hospital.

Doctor Waldman's topic will be "Recent Advances and New Problems in Diagnosis and Treatment of Meningitis," while Doctor Partin will discuss "Reye's Disease, a Primary Care Problem: Diagnosis and Treatment."

"Non-invasive Techniques" will be the title of the concluding Sunday morning session. Two of the speakers and their topics, also as announced previously, will be "The Non-Invasive Peripheral Vascular Laboratory"—Ronald A. Savrin, M. D., WVU Assistant Professor of Surgery, and Director, Non-Invasive Peripheral Vascular Laboratory; and "Computed Tomography"—James T. Smith, M. D., Charleston radiologist and Director of the Computerized Axial Tomography Laboratory at Charleston Area Medical Center.

### Other Conference Information

The conference registration fee will be $25 for physicians, with no fee charged for nurses, medical students, interns and residents. Advance registration is requested, with checks made payable to the West Virginia State Medical Association.

The program meets the criteria for 13 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association, and is expected to carry prescribed credit by the American Academy of Family Physicians.

Serving on the Program Committee are Drs. Ralph H. Nestmann and Joseph T. Skaggs, both of Charleston, Co-Chairmen, and Drs. William O. McMillan, Jr., Charleston; Maurice A. Mufson, Huntington; Robert L. Smith, Morgantown, and C. Carl Tully, South Charleston.

Registration and other information may be obtained by contacting the West Virginia State Medical Association, P. O. Box 1031, Charleston 25324; or phone (304) 346-0551.

Additional details, including other conference spakers, will be provided in later issues of *The Journal* as the program is completed.

# Medico-Legal

*Editor's Note:*

*The following material was prepared by Richard D. Lindsay, M. D., J. D., of Charleston, a 1974 graduate of West Virginia University School of Medicine and a 1978 graduate of the West Virginia University School of Law.*

*Doctor Lindsay presents for this month Part I of a discussion of the case of Hinkle versus Martin (Hinkle v. Martin 256 S. E. 2d 768).*

## Similar Locality Testimony Rule Reaffirmed

### Introduction

On July 17, 1979, the West Virginia Supreme Court of Appeals affirmed a decision from the Circuit Court of Cabell County. This action by the West Virginia High Court reaffirms for physicians two principles which have been eroded elsewhere:

(1) The necessity of expert testimony in order to show that a defendant physician was negligent.

(2) The necessity of expert testimony being given by one who practiced the same specialty, and in a similar locality as the defendant physician.

It is the purpose of this first article on Hinkle v. Martin to explain the requirement of similar locality testimony. The second article will investigate expert testimony regarding the setting of the standard of care, which the law requires to decide whether a defendant physician is negligent.

### Locality Rule

The locality rule, written by the Supreme Court of Appeals of West Virginia, states that: "The physician's duty to his patient is to exercise such skill and diligence as are ordinarily exercised by average members in good standing of the profession in a similar locality and in the same general line of practice, regard being given to the state of medical science at the time."[1]

This principle of the locality rule, written in 1965, was reaffirmed in Hinkle v. Martin. It would seem to be apparent that, on this important question of qualification for expert testimony, the West Virginia courts have stood fast for at least the last 14 years. The reason that Hinkle v. Martin is so important is precisely because the West Virginia courts, and indeed the courts of the other states, have not held to a strict locality rule, but have progressed to a "national standard."

### National Standard In West Virginia

The rationale for the use of a national standard of care and treatment for physicians is a result of modern times and communications and training itself within the profession of medicine.

Years ago, one could say that care and treatment given in a community of 2,000 people could not possibly be the same quality of care given to an individual in a large metropolitan area. The local physician in a small community would not have had the benefit of modern advances and equipment, assistance, facilities or medicines. It was impossible to send his patient on a long and difficult journey to a larger and better-provided-for area without some significant increase in the morbidity and mortality of that patient merely by the transfer alone.

The law was then, without a doubt, correct in stating that the standard of care given, if people are in a small area where they have any medical care at all, will vary from community to community or locality to locality. One charged with medical malpractice should be held only to the standard of that community in which he practices, or a similar community.

The development of modern medicine has meant, however, that now, because of training, communication, access and education, there is no excuse, except in the most extreme circumstances, for care given by a physician who is not qualified or equipped to render such care. By qualification, it is not meant that he or she must be a specialist in a given field, but the physician should now perform the same studies, treatment and evaluation as a specialist in that field would in the care which he is rendering to his patient.

### Significantly Eroded

The courts have followed the trend of modern medicine and, in many states, including West Virginia, the "locality rule" was significantly eroded.

In 1967, just two years after its latest enunciation of the locality rule, the West Virginia Supreme Court of Appeals stated that if a procedure did not vary from one part of the country to the other, then an expert witness who had no knowledge of the locality standard or procedure could testify.[2]

Additionally, in the same case, the High Court implied that a specialist in a particular medical field would be held to a national standard for a given procedure, the standard of the local community notwithstanding.

It was felt by most commentators that, at the time of the decision above, West Virginia had stated that physicians practicing within it would be held to the care, treatment and knowledge held by their counterparts anywhere in the United States.

### The Locality Rule Today

In Hinkle v. Martin, the Court appears to be reverting to its pre-1967 opinion as to the standard of care a West Virginia physician must meet. It explicitly backed away from its discussion in the 1967 case of Hundley v. Martinez, at which time specialists in specialty practice were all rated according to the national standard for comparison.

Today, a physician in West Virginia would be held only to that standard of care which is practiced in the same or a similar community to that in which that physician now practices. This position of the West Virginia Supreme Court of Appeals, if confirmed by later cases and interpreted strictly, will cause a significant problem for plaintiff and their attornies.

[1]*Schroeder v. Adkins,* 141 S. E. 2d 352 (1965) practices.
[2]*Hundley v. Martinez,* 158 S. E. 2d 159 (1967).

## DiMaggio Contributes To WVU Chair Of Nutrition

Hall of Fame baseball great Joe DiMaggio has made a major contribution to an endowment fund to support a new chair of nutrition in the West Virginia University School of Medicine, according to WVU President Gene A. Budig.

DiMaggio has business interests in West Virginia.

The WVU President said the endowment fund was envisioned by Charles E. Compton, a Clarksburg coal operator and member of the Board of Directors of the West Virginia University Foundation, Inc.

Budig said the program will not only make WVU a leader in nutrition research and education, but can help alleviate nutrition-related diseases that claim the lives of an estimated 11,000 West Virginians annually.

"There is a growing consensus that now is the time to take stock and reverse some of the undesirable trends in nutrition today," Budig said. "The universities have a responsibility to play a major role in that life-saving and life-enhancing effort."

The West Virginia State Medical Association, at its Annual Meeting in August at the Greenbrier in White Sulphur Springs, approved a resolution which endorsed a Chair of Nutrition at WVU.

It is Compton's hope that a large endowment fund will be established and the interest will fully finance the proposed professorship in nutrition and necessary support services.

### One of Five Chairs

The chair of nutrition will be one of five endowed professorships to be established as part of the WVU Foundation's five-year, $20 million capital campaign that began this year.

One other chair has already been established in the School of Medicine by Mrs. Hazel Ruby of Morgantown in honor of Dr. Edmund B. Flink, Benedum Professor of Medicine and retired Chairman of the Department of Medicine. Two other endowed professorships are to be established in the College of Mineral and Energy Resources, and the fifth will be in the College of Engineering.

Private income from endowments allows WVU to attract scholars with national reputations.

In making the contribution, DiMaggio said that he "believed in the importance of a professorship in nutrition" and "respected the leadership" of the University.

Budig said part of the responsibility of the holder of the Chair of Nutrition will be to develop a curriculum in nutrition that could be used by the nation's secondary schools.

"He or she will work closely with the WVU College of Human Resources and Education to provide a model nutritional program to be taught in high schools across the country," he explained.

### Coordinated Nutrition Education

Budig noted that many aspects of nutrition—in teaching, research and patient care—are a concern of WVU, but they are scattered through many departments at the Medical Center and in agriculture, biology, the College of Human Resources and Education, and the Center for Extension and Continuing Education.

"What we need is a leader for these activities, who should be a professor in the School of Medicine," he said.

"This person will coordinate nutrition education at the undergraduate and graduate levels. This person will conduct and coordinate research on nutrition and nutrition-related diseases including diabetes, heart disease, atherosclerosis and cancer.

"Finally, the professor will coordinate clinic and hospital consultations on patients with nu-

tritional disorders like obesity, diabetes, malabsorption, excess cholesterol and gout."

**University-Wide Committee**

In accomplishing these objectives, Budig said, the professor would chair a university-wide nutrition education committee to develop new courses and recommend how to improve present nutrition teaching.

"The professor would establish clinics in the outpatient department at University Hospital for patients requiring specific, ongoing nutritional counseling and to teach good nutritional habits to specific high-risk groups.

"And research is needed—laboratory work to identify health hazards at the cellular level and community assessments to determine priorities in nutritional education," said Budig.

Dr. Charles E. Andrews, WVU Vice President for Health Sciences, said many Americans feel that nutrition "has lost its way."

"They believe that production of food has changed for the worse and can be dangerous, especially use of toxic sprays, that processing of food has adulterated and reduced the natural quality of foods, and that consumption of food has outstripped the need for nourishment. The result is an epidemic of obesity, diabetes and diseases of the bowel," Doctor Andrews said.

"Through research, education and training of health care professionals, the proposed nutrition program will improve the health of West Virginians and help prevent the development of these and other serious nutrition-related diseases," he added.

## AMA House Sets Meeting For Hawaii Dec. 2-5

The American Medical Association's House of Delegates will hold its interim meeting December 2-5 in Honolulu, with upwards of 150 resolutions, reports and other matters expected to be presented to the 277-member policy-making body.

West Virginia's Delegates to the AMA House are Drs. Frank J. Holroyd of Princeton and Richard E. Flood of Weirton, with Drs. Jack Leckie of Huntington and Harry S. Weeks, Jr., of Wheeling as Alternate Delegates.

Such critical issues as pending national health insurance proposals once more before the Congress, and the continuing, boiling controversy over the best approach to controlling health care costs, almost certainly will get much of the House's attention.

# *Review A Book*

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*Clinical Cardiology, 2nd Edition*, Maurice Sokolow, M. D., and Malcolm B. McIlroy, M. D. Price $17.50. Lange Medical Publications, Los Altos, California 94022. 1979.

*Growth Standards in Children*, by Herbert H. Pomerance, M. D., with a contribution by John M. Krall, Ph. D. 225 pages. Price $25. Harper & Row, Publishers, Inc., P. O. Box 7777 — RO200, Philadelphia, Pennsylvania 19175. 1979.

*Review of Medical Physiology, 9th Edition*, by W. F. Ganong, M. D. 618 pages. Price $14. Lange Medical Publications, Los Altos, California 94022.

*One Hundred Years of Physiology at West Virginia University, 1869-1969*, by Edward J. Van Liere, Ph. D., M. D. 124 pages. Price $10. West Virginia University Foundation, Morgantown, West Virginia 26506. 1979.

*The Nervous System, 2nd Edition*, by William F. Ganong, M. D. 243 pages. Price $11. Lange Medical Publications, Los Altos, California 94022. 1979.

*Current Surgical Diagnosis and Treatment, 4th Edition*, by J. Englebert Dunphy, M. D., and Lawrence W. Way, M. D. 1162 pages. Price $19. Lange Medical Publications, Los Altos, California 94022. 1979.

## Pfizer Joins Supporters Of Meeting Program

Pfizer, Inc., of New York City was among supporters of the scientific program offered during the State Medical Association's 112th Annual Meeting at The Greenbrier in White Sulphur Springs in August.

The Pfizer contribution was received after the convention issue of *The West Virginia Medical Journal* and the official convention program went to press.

## Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for 1979 and part of 1980, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

| | | |
|---|---|---|
| Nov. 1 | Morgantown | Annual Pediatric Day |
| Nov. 2 | Morgantown | Conference on Continuing Medical Education |
| Nov. 9 | Wheeling | Family Practice Update '79 |
| Nov. 9-10 | Morgantown | Diabetes Day |

**Visiting Professors**

(Morgantown)

| | |
|---|---|
| Nov. 16-17 | *Dept. of Surgery*: Olga Jonasson, M. D., Chief of Surgery, Cook County Hospital, Chicago (topics to be announced) |
| Dec. 14 | *Dept. of Radiology*: Charles Kerber, M. D., Professor of Radiology, Presbyterian-University Hospital, Pittsburgh |

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|---|---|
| Jan. 11 | *Dept. of Radiology*: Philip Strax, M. D., Medical Director, Guttman Institute; Associate Clinical Professor of Community and Preventive Medicine, New York Medical College, New York City. |
| | *Dept. of Anesthesia*: One Thursday each month, 4 p. m. |
| | *Dept. of Medicine*: Variable—incorporated in Grand Rounds |
| | *Dept. of Family Practice*: Variable —incorporated in Grand Rounds |

## Primary Health Care Meet At Canaan Valley

"Dialogue III," the third annual West Virginia Primary Health Care Conference, will be held in Canaan Valley State Park at Davis November 14-16.

The conference is sponsored by the West Virginia Primary Care Study Group, composed of representatives from rural, non-profit primary health care clinics in West Virginia and other persons interested in primary health care delivery.

The program will begin at noon on Wednesday, November 14, and conclude Friday at noon. The agenda will include practice management sessions, workshops, "Perspectives on the West Virginia Clinic Experience," and "West Virginia Primary Care Clinic Operations—Representative Models of Operation."

For registration and other information contact Bettina T. Durmaskin, Conference Planning Committee, Office of Health Services Research, 258 Stewart Street, Morgantown 26505; or telephone (304) 293-2601.

## Women Physicians Organize, Hold First Meeting

The West Virginia Branch of the American Medical Women's Association (AMWA) has been chartered officially by the national organization, and held its first annual regional meeting on October 27 in Morgantown.

The announcement was made by Dr. Myra R. Zinke of Philippi, a Branch member and a speaker for the October meeting. Doctor Zinke said Dr. Lois Scully, President of the national organization, signed the West Virginia Branch's charter last March 7.

The Branch was founded last spring by 26 women physicians. Dr. Josefina Q. Marcelo of Berkely Springs, who was the prime mover in getting the Branch organized, serves as its first President.

Other officers, who will serve until 1981, include: Drs. Florence E. Hoback, Huntington, President Elect; Mary F. Knapp, Nitro, Secretary, and Dr. Maria Estacio-Suarez, Huntington, Treasurer.

The October program in Morgantown was to include talks on "Women and Medicine," by Dr. Alexandra Symonds, New York City psychoanalyst; "Mid-Life Career Change," Doctor Zinke, who is Medical Director of the Physician's Assistant Program at Alderson-Broaddus College in Philippi, and a panel discussion, "Combining Medicine, Research, and Family."

Panelists scheduled were Dr. Claudine Gay of Washington, D. C., Past President of the AMWA; Dr. Margaret J. Albrink, Morgantown, Professor of Medicine, West Virginia University School of Medicine, and Dr. Lois V. Svoboda, Assistant Professor, Family Practice, WVU.

The AMWA will hold its annual meeting November 7-11 in Albuquerque, New Mexico.

## Hemophilia Care Clinic Offered By WVU

A comprehensive care clinic for patients with diagnosed hemophilia and Von Willebrand's disease has been developed at the West Virginia University Medical Center, Morgantown, under the direction of Drs. John S. Rogers II, Department of Medicine, and Barbara Jones, Department of Pediatrics.

Patients referred to this clinic are seen and evaluated by a pediatric or adult hematologist, an orthopedic surgeon and an oral surgeon.

Social service, genetic and psychological counseling are available as well as appropriate laboratory evaluation.

Recommendations are made concerning the patient's future care. These recommendations are forwarded to the referring physician.

Supervised instructions in home therapy are available.

The comprehensive clinic is held on the third Thursday afternoon of each month.

Inquiries regarding patient referrals should be directed to Doctor Rogers in care of the Division of Hematology/Oncology, Department of Medicine (telephone: 304-293-4229).

# *Medical Meetings*

Nov. 1-3—Pa. Med. Society, Camp Hill.

Nov. 1-4—Med. Society of Va., Hot Springs.

Nov. 3-4—AMA Regional Meeting, Asheville, N. C.

Nov. 4-5—Am. College of Preventive Med., New York.

Nov. 4-7—Southern Med. Assn., Las Vegas.

Nov. 4-8—Am. Public Health Assn., New York City.

Nov. 4-8—Am. College of Chest Physicians, Houston.

Nov. 5-9—Am. Academy of Ophthalmol., San Francisco.

Nov. 7-11—Am. Med. Women's Assn., Albuquerque, N. M.

Nov. 14-16—W. Va. Primary Care Study Group, Canaan Valley State Park.

Nov. 16-17—Med. Society of Delaware, Wilmington.

Nov. 17—Rowland H. Burns Memorial Critical Care Conference, Barboursville.

Nov. 17-18—AMA Regional Meeting, Louisville, Ky.

Nov. 29-30—Am. College of Chemosurgery, Chicago.

Dec. 1-6—Am. Academy of Dermatology, Chicago.

Dec. 2-5—Interim Meeting, AMA House, Honolulu.

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Jan. 12—AMA Conference on Medical Aspects of Sports, San Antonio.

Jan. 12-15—AMA Winter Scientific Meeting, San Antonio.

Jan. 19-23—Am. College of Allergists, Miami Beach.

**Jan. 25-27—13th Mid-Winter Clinical Conference, Charleston.**

Jan. 27-Feb. 1—International Gastoenterol. & Family Practice Conference, Orlando, Fla.

Feb. 7-12—Am. Academy of Orthopedic Surgeons, Atlanta.

Feb. 16-20—Am. Academy of Allergy, Atlanta.

March 9-13—Am. College of Cardiology, Houston.

April 10-11—W. Va. Chapter, Am. Academy of Pediatrics, Charleston.

April 17-18—Rural Health Conference, Boston.

April 18-20—Scientific Assembly, W. Va. Chapter, AAFP, Morgantown.

April 20-23—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 30-May 2—Med. & Chirurgical Faculty of the State of Md., Hunt Valley, Md.

May 10-15—Ohio State Med. Assn., Cincinnati.

**Aug. 20-23—113th Annual Meeting, W. Va. State Assn., White Sulphur Springs.**

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## Special Article

# Medicine: It's A Beautiful Story!*

HOYT D. GARDNER, M. D.
*Louisville, Kentucky, President, American Medical Association.*

Mr. President, distinguished leadership at the rostrum, colleagues and ladies and gentlemen, it is a great pleasure and privilege for Rose and me to be with you—and to return here again—particularly in my present capacity. Your state and your leadership had no small amount to do with the fact that I am here as President of the American Medical Association.

Your delegation to the American Medical Association has demonstrated through the years what it can do, even though it comes from a small state, and I'm particularly grateful to them for being the beneficiary of this strength. I speak particularly of your delegation of Dick Flood, Jack Leckie, Harry Weeks and my confidant and mentor, who in all kinds of cataclysmic situations has stood fast with strong support, Frank Holroyd, who is my manager. Thank you.

It is a great pleasure to bring you greetings from the Association — the American Medical Association — and, of course, from Kentucky. Kentucky is a state, as you are aware, from the motherhood of Virginia. Furthermore, as you well know (I think I've told you this before, but I want to emphasize it again because Carl Cooper and I are well aware of these things), Kentucky is a state that provides all the basic essentials of life—tobacco, whiskey and race horses. Having been here yesterday and at noon today, I certainly want to express to you all for the strong support you're giving us. These commodities are extraordinarily essential to us because from them come our basic monies which we, in turn, spend on women and politics. That, of course, explains our perpetual state of poverty.

I thought we would visit together today for a few minutes about our Association, the American Medical Association. If you're a physician, it is your Association, whether you hold membership or not.

I wish also to express concern for the fact that the beautiful, magic story of medicine is left untold, not by the outside world so much, but by ourselves, because of the pressures of the things we do daily in life.

### Taken for Granted

The miracles, we create unthinkingly. Because of the great things that they are, we take it for granted because we do them routinely, and have been taught to do so. The professionalism, which is exemplified by each of you personally in your office and in your hospital and in your Association, is taken for granted as much as we take oxygen for granted in the air. So as a consequence, the real story of what our Association represents; what medicine represents; what the profession represents; what doctors are known for, goes untold—particularly because we ourselves, in all this great haste to do these things, don't tell it.

Sometimes this is because of modesty, or because what we have to do consumes so much of our time. But, most of all, because it is so great, so good and so magic, it is taken so much for granted that it goes unsung. So I thought maybe

*Presented at the first session of the House of Delegates, 112th Annual Meeting of the West Virginia State Medical Association, the Greenbrier, White Sulphur Springs, W. Va., Wednesday, August 22, 1979.

today, for these few minutes, we would visit together. May I urge you to take this story back and begin to tell it, using the few seconds you can find each day to extol the virtues and the magnificence of these things about your profession that are provided to our people.

We can visit together a little bit about medicine in this country today. We can talk about your Association, the American Medical Association. Then I want to talk to you about a specific piece of legislation and then leave you with a thought for the future.

I'll start our discussion and visitation together by assuring you at the outset, as I will prove to you conclusively and as you already know, your Association has not been waiting on a train.

Let's look at the profession in this country today — 407,000 physicians are licensed and alive in this country today, and 87,000 of those are colleagues who have joined us from foreign shores. Last year, there were 19 million operations in our hospitals, and 34 million hospital admissions. Three million people visited our offices every day, resulting in nine million prescriptions daily. We have 124 accredited medical schools in this country, and—setting an all-time record — they graduated last year over 16,000 students. Sixty-four thousand students are enrolled for this next year, also an all-time record in the history of medicine in this country and in the world.

There are 40,000 doctors this coming year involved in postgraduate medical education. Again, this is an all-time record. Think of this—there are 200,000 ongoing research projects in this country right now, 200,000. From research this last year have come 5,000 new descriptions of appliances, techniques, drugs and other procedures, and 1,000 new described surgical procedures. Once more, these are all-time records that are being set in *this* country, and all are a result of motivation to excel—to exceed—to benefit.

### Exemplification of Expertise

Our profession is represented today by 51 specialties. Think of this. An all-time record. No other country has this kind of exemplification of expertise and technology. When I started practice 20 years ago there were 23 specialties, and now we have developed ourselves to the point where we have more than doubled this in two decades.

Think also of this. All this amalgamation of what we do has resulted in a gross national product of 180 billion dollars last year, making us the second or third largest industry in this country. And I signal this to you because think what happens when government tinkers slightly with agriculture, steel, motors or energy. And yet you hear demagogues say that they want to completely change the system. Change the approach. Change the whole procedure, and they say it continuously.

Let's look, then, at our organization for a moment. Under the broad canopy of the American Medical Association, there are 2,300 organized facets—from the county to the state, to the specialty, to the subspecialty—all these put together voluntarily by doctors who want to exchange, to visit, to excel, to have the opportunity of interprofessionalism that the organization makes possible, as well as also to maintain the standards of professionalism in what we do. And outside of the umbrella of the American Medical Association — your Association — there are 283 other organized facets. As a matter of fact, one, after hearing all this, indeed is stunned when someone says that there is no system of medicine in this country. Actually there are almost 2,500 organized facets of such a system.

### 139 Years Old

Let's talk further about the AMA for a moment, and share some of our virtues. As you know, the AMA is located at 535 North Dearborn Street in Chicago. It is incorporated under the laws of Illinois to make it possible for us to do business. The AMA is 139 years old with 215,000 dues-paying members last year. There have been 134 presidents, and with complete modesty, I tell you that eight of them have come from Kentucky. This ties us with Pennsylvania and California as one of the three states with the most past presidents of the American Medical Association. If things work out, and we can get Frank Holroyd to manage us, we're going to have nine, and Pennsylvania and California will be in second place.

This past year, we saw all-time record numbers in the House of Delegates—274 members. And from this House of Delegates, whose members are elected from the state and county levels, comes the only policy that the American Medical Association has. It stands as a complete exemplification of grass roots support.

Three years ago, we studied the sources of resolutions that went before the House—the voice of medicine, which is the House of Delegates—and became policy. Almost half of them came from individual doctors in county societies who had ideas they thought were worthwhile. They submitted their ideas to the judgment of col-

leagues at the county level, and those colleagues thought those ideas were important. Subsequently, the ideas were submitted to state societies, and those societies thought they were important. Then, the resolutions were submitted to the AMA House of Delegates. The House thought they were important, and those ideas became the policy of medicine in this country—originating, remember, from individuals. This is repetitive, and it happens almost every time that the House meets—almost half of our considerations come from those who have felt deeply and strongly that certain things should become the policy of the House. There is no better example of democracy in the world than your Association.

Between the two sessions of the House each year custody is held by the Board of Trustees. Twelve Board members are elected by the House of Delegates, and Bill Hotchkiss of Virginia is one of those. The President, President Elect and the Immediate Past President complete the 15 members. We have 950 employees in Chicago. Last year, we had a gross budget of $64 million. All of our activity is administered by our Executive Vice President, Jim Sammons.

Let me point out a very positive story for you. Eighty-five per cent of that budget last year was spent on the enhancement of the profession or the betterment of people's health. Sixty-one per cent of it was spent on pure science of medicine. There is no other major organization in this country, and I'm sure abroad, that spends, for things outside its own structure, this proportion of its budget. Again, of the 64 million dollars, 85 per cent went beyond ourselves to improve our citizenry, to improve the profession, to extol and interchange ideas, professionalism and technology.

### Largest Scientific Publisher

Think also of this. The AMA is the largest publisher of scientific material in the world—26 major publications, a weekly newspaper, a monthly journal, with 38 million copies distributed last year and now being distributed overseas in the Far East, South America, England, and now China. One billion people can benefit from this expertise and technology. And, by the way, through the World Medical Association, we maintain ongoing relationships with 141 other countries. There is a continual parade of people going through our corridors at 535 North Dearborn that say: "Give us this help, give us this expertise, give us this technology. You exude it. You have it more than anybody else. Send it to us." As I say, the most recent example is China. And I repeat, a billion people now are asking for new, modern medicine. Who are they asking? Us. The AMA. Medicine in this country, and your organization.

Every licensed physician in this country is known to the AMA computers, the only organization that has that information. By the way, the computers in the AMA are the equivalent of those in HEW, and I hope that will give you some feeling of reconciliation and assuagement. As you recall, not too long ago, there was a release from HEW in Washingotn, a statement of the number of physicians who had received in excess of $100,000 from Medicare. This created an implication, at least, that there was something illegal about this. After we submitted the material to our computers, we found 64-per-cent error in the HEW listings. This has been called in some channels "computer malpractice." Since HEW found out that we did channel information through our computers, you will note that it has not come out with this kind of information since. If it does, I assure you we will submit it to our computers again. Not that we don't trust HEW. We simply like to verify its releases.

### AMA Gives Professionalism

This fits in with experiences I guess all of us have had. Often, usually when I'm leaving my car to run in the hospital, somebody will walk up and say, "By the way, I've got about five minutes, tell me what the AMA is doing." I ask him what two weeks he would like to take off, and go with me to Chicago, or to West Virginia. So far, no one has accepted my offer, so I'm not sure how serious their question is, but I cannot answer a question like that in five minutes in a parking lot.

Now let me talk to you about something else, because the idea is to "tell me today what the AMA is doing for me now." It is easy to do. The AMA gives you your professionalism. It sets you apart as being different. As a matter of fact, it gives you the creditability that allows you to be licensed, and allows you to maintain your practice. It makes you different from the ditch-digger, makes you different from the salesman; it makes you different from the farmer; it makes you different from anybody else. Because you are so certified by the American Medical Association, and always have been. You are the professional. You are the doctor. Your credentials are correct.

Why do I say this? Because the American Medical Association, either singly or jointly, accredits all the medical schools, all the hospitals, all the ancillary health care facilities, all the am-

bulatory health care facilities and the medical schools here and in Canada—I bet you didn't know that. And all of this is done voluntarily. Nobody mandates that this has to be done. This is the most regulated medical profession in the world—in this country. The most regulated right now, and 80 per cent of it has been done by the profession itself—80 per cent of it. Why do I say that? Tissue committees, peer review, medical audits—all of this is done voluntarily by physicians to insure that the quality care is correct. And, it's done voluntarily. And, if it were not done by us, think of the alternative. Because it has to be done. It would be done. It would be legislatively done.

### Never a Debate About Quality

But nobody, you see, in the debate and dialogue that goes on challenges the professionalism of you. The debate is about cost, and sometimes it's about regulations, but it is never about quality. It is never about the fact that we do certify all of these things, because it's done by whom? By you—your Association—the thing that gives you your professionalism, your professional life. It "births" you, it continues you and it will follow you unto death, because you always will be John Jones, M. D., so certified, so accredited, so professionalized by your Association—the American Medical Association.

Now I want to talk about a couple of areas which do have some connotation of controversy about them. It is important that you understand these things, because they are things the profession does for you every day. They lie in the legislative and the political arena.

What about the Washington Office? What does it do? What's it about? As I told you, we had last year a gross budget of $64 million. One million, three hundred thousand dollars have been budgeted for our Washington Office, about one per cent or less, for legislative matters.

There are 30 employees in the Washington Office, five of them lobbyists. You've heard references to that giant, highly-financed lobby of the American Medical Association obstructing health care for people. You've heard the demagogues say this time after time. I say, if five lobbyists is a giant lobby, God help us for a diminutive lobby. If one half of a per cent of somebody's budget is a high-finance program, Lord save us there, because the lobby that goes on within the Congress and with bureaucracy itself would eat us tomorrow.

But let me give you an example of how good our people are for us—for you. These five lobbyists last year, and let's look at the 95th Congress—we're in the middle of the first session of the 96th now, standing in adjournment until next month. Ten thousand bills came before the 95th Congress. Think of this, 2,500 of them had direct medical connotation—one fourth, one fourth of the federal legislative considerations had to do with health care. You would indeed have to be a cave-dweller to say that you have no time for legislation and politics, when 25 per cent of the considerations of federal legislation has to do with you.

From this office in Washington came 760 different efforts related to legislation in that Congress, either in testimony or research—all kinds of efforts in getting people together. By the way, our testimony today is given by the best expert we can find in the field when they ask for it. And, they're asking all the time. There is a continuous stream of witnesses. But neither the President, nor the Chairman of the AMA Board, goes down there any more and reads a long, drawn-out statement. We find the best expert there is in the area, and we ask him to give the AMA testimony. You'll note in the last two or three years there hasn't been so much criticism. I can give you an example of this, which occurred not very many months ago, before one of our Senate committees.

A senator was interrogating a gentleman physician, a scientist, who was giving testimony. He said, "Well doctor, I'm reading here from a document," and he went through enumeration of various and sundry things, and in a rather skeptical tone, he said, "I would like to get your reaction to this expert's opinion." The physician said, "I will be glad to give them to you, sir, I wrote the article." It was interesting to see that the senator immediately withdrew from the field, and remained silent thereafter.

### Modernization of Association

This is an example of what we are trying to do in the name of modernization of your Association—to give the best that we can, every time that we can. I'll tell you, you do get a funny feeling when you work with some demagogue for three months, getting together a preventive medicine program in Washington by assembled internationally-known people—a program with national exposure, and several millions of people aware of it on TV—and then realize that much of that effort was put together at AMA expense, from your dues. Much of the program to which I'm making reference was put together by our staff and co-hosted by our immediate Past President, Tom Nesbitt. But then we find that a sena-

tor who resides somewhat above New York and slightly below Maine gets on TV one week later and says that the obstructionism of medicine and the AMA, which cares nothing for preventive medicine, must be brought to task. That three-month program was on preventive medicine. We co-chaired it with the senator, and much of it was developed by our staff and at our expense. Now that's demagoguery really in the highest degree, and it's politicizing an issue only for personal aggrandizement. It is not in your best interest, nor in the interest of people, when we have that kind of people in high office who are giving that kind of representation of facts.

There is another thing that you need to know. In all of this testimony that we give, 90 per cent of it is positive. Ninety per cent of what we say, we insist, yes, we should do this. Yes, we should do this for the Armed Forces. Yes, the nurses should be helped. Yes, the medical schools should have capitation. Yes, these research funds should be provided. There is a continual parade of "yesses." But you often hear about the negativism of the image of the AMA. So do this the next time it comes up. Say, all right, take national health insurance out of it, and tell us now what you think of the AMA. Leave national health insurance to the side, and tell us how you react to the AMA now, and see if, first of all, they know anything, and if they do, if they know anything negative.

### National Health Position

By the way, our position on national health insurance has been positive. For several years, beginning in 1971, we had our own bill in. Last year, the House again decided our policy should be to fill in the gaps because 90 per cent of our people do have major medical, and 75 per cent of them have catastrophic. Only 10 per cent of our people, for whatever reason, are medically disenfranchised. Do we completely destroy all this marvelous, glorious system that's going on in the name of 10 per cent?

But we've had a positive position. We're talking about filling in the gaps. By the way, you talk about 10-per-cent medical disenfranchisement. It's 18 per cent in England, and they have had 30 years of government effort to correct it. Russia has admitted—notice I say, admitted, to 15-per-cent medical disenfranchisement, yet they have total control. And yet here, people voluntarily, motivated to excel, only have 10 per cent? Which leads me to the national health insurance situation. I told you I want to speak specifically about this because when you ask people to leave national health out of it, they have no other real things to talk about about the AMA outside of the profession. But the next time it comes up, say, all right, we will go. We will admit and accept and accede to your ideas of national health insurance if it will fit into certain patterns. We will accept it, if you can say yes to any of the following questions:

Will there be less regimentation? Will there be less bureaucracy? Will there be better management? Will it be more private and personal? Will there be less cost? Will there be less politics? Will there be more personal motivation and selectivity by patient and doctor? Will there be more compassion and feeling for the sick and for the ill? And lastly, if the answer is yes to any of these questions, where is the example? Where is the example?

### Learned Professions Called Upon

No other place in the world has the kind of health care this nation enjoys, and you have only to travel any place to find it out. But new challenges are ahead and they are approaching us rapidly. We must deal with them. Since the beginning, the four original learned professions have been called upon—and I enumerate them: medicine, law, religion and education—have been called upon by human kind for advice and consent, counselling, a sense of direction as to what civilization should do when it is confronted with basic decisions. The four original learned professions always have been the tutors when people must make decisions and set priorities. Everyone knows today that this is a rapidly-shrinking world. There isn't an abundance of many resources any more, and resources we have are rapidly being utilized. As a consequence, civilization again is turning to the four original learned professions of medicine, law, religion and education for a sense of direction.

You ask, "What are you talking about?" I speak specifically of examples such as this: amniocentesis, test-tubing and cloning. You say, ah, cloning. What's that? Tadpoles. But colleagues and friends, you know the expertise and the technology of our profession. When you're talking about a tadpole today, you're talking about a 500-pound frog tomorrow. It's here! Everything starts with a tadpole. The majesty of this profession will lift it up, the 500-pound frog on the finger and twirl it around and say, I told you so.

What else am I talking about? Karen Ann Quinlan is an example. Quality of life is gone, but the body goes on, through your expertise,

your technology and your abilities to sustain the body. Go through the geriatric centers. The same thing is happening, but at the cost equivalent to sending seven or eight kids to college every year. Civilization is deciding what to do in these situations.

**Owe AMA Strength to Continue**

Let's take another complete example. Here people are committed and absolutely believe emotionally with everything within them in their moralities and their thoughts about an issue that's been raging in this country and around the world — abortions. What about abortions? People are returning to the four original learned professions for decisions. Which leads me to a major point that I want to emphasize to you about your Association—the American Medical Association—and the 141 countries around the world that turn to us for a sense of direction. Nobody can speak for the original learned profession of medicine in this country and in this world today except the AMA. Your Association, the Association that gave birth to you, that continues you and will be with you in the hereafter. If there is a challenge that rests on your shoulders, it is at least this much. You must give your organization the strength to continue to speak and give a sense of direction. Yes, indeed, to civilization, if you owe it nothing else, you owe the strength of organizational membership.

One of our critical issues today is membership. If you feel any sense of responsibility whatsoever, not only for your profession, but for civilization itself, you owe your Association, which will give the guidance to civilization that is demanding it, at least your membership. For all it's done for you, and to what we owe to all future generations, you need to show appreciation and recognition.

So, I leave you with this thought. On the looming horizon that's coming at us so rapidly, tell the beautiful story that you can tell of all the magic you perform every day. Give your Association at least the strength of membership for all that it has done for you, but most of all, for what it has done and will do for so many forever.

## Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8 ½ by 11 in.) white paper. Wide margins (at least 1 ¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a carbon copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 1031, Charleston, W. Va. 25324.

# The Heart In Sarcoidosis

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*A case of sarcoidosis involving the heart is reported. Although cardiac sarcoidosis is rarely detected clinically, autospied cases frequently demonstrate myocardial sarcoidosis. Involvement of the heart should be checked out routinely in patients wtih sarcoidosis in view of the increased frequency of cardiac arrhythmias and sudden death.*

COMMON clinical presentations of sarcoidosis are easily recognizable and have a good prognosis, but there are important exceptions. Uncommon sites such as the central nervous system, the liver and the heart may cause diagnostic difficulty. Although sarcoidosis is not a rare disease, clinical recognition of intrinsic involvement of the heart is infrequent. This is irrespective of the finding that up to 20 per cent of patients with sarcoidosis at postmortem can be demonstrated to have some degree of myocardial involvement.[1] As of 1971, only 10 cases of documented clinical involvement of the heart had been reported in the literature.[2] Intrinsic cardiac sarcoidosis can take several forms including heart block, ventricular arrhythmia, congestive heart failure, sudden death and pericardial involvement.[3,4]

Recently, we studied a young male with sarcoidosis whose clinical presentation was prompted by the finding of second-degree atrioventricular block and an abnormal chest roentgenogram.

### Case Report

A 25-year-old black male presented to the hospital for evaluation of an abnormal chest x-ray which had been obtained during a routine annual physical examination. He had been in good general health until two weeks prior to admission when he developed conjunctivitis involving both eyes. No history of dyspnea, orthopnea, palpitation, heart murmur, or fatigue had been recorded.

On physical examination, the patient was alert and muscular, with a blood pressure of 120/90 mm. Hg, an irregular pulse rate of 56 beats/min. and a temperature of 37°C. There was bilateral conjunctivitis, but no skin lesions, peripheral clubbing or edema or lymphadenopathy. The carotid upstroke was normal. The chest was clear to auscultation. The left ventricular impulse was normal in size and location. Heart rate was irregular at 56 beats/min. The first and second heart sounds were normal; there was no murmur or gallop. The liver was normal size.

The hemogram and electrolyte determinations were normal. Serum calcium was 10.2 mg./100 ml.; total bilirubin was 1.7 mg./100 ml.; and serum glutamic-oxaloacetic transaminase was 43 IU/liter. Skin test for tuberculosis was nonreactive.

The chest roentgenogram showed bilateral hilar lymphadenopathy with clear lung fields. The heart was normal size. The electrocardiogram revealed a sinus rhythm with a type 1 (Wenckebach) second-degree atrioventricular block and a 4:3 atrial-to-ventricular response (atrial rate 73 beats/min. and ventricular rate 55 beats/min.). The QRS axis was normal. A 24-hour ambulatory electrocardiogram showed intermittent 3:2 and 4:3 second-degree atrioventricular block.

Pulmonary function studies showed a severe impairment of diffusion and mild arterial oxygen desaturation with exercise.

Mediastinoscopy confirmed hilar lymphadenopathy, and microscopic examination of the biopsied lymph nodes revealed noncaseating granuloma with giant cells compatible with sarcoidosis.

The patient was treated with topical steroids to the conjunctivae and systemic steroids which produced rapid resolution of the conjunctivitis. Three months after starting systemic steroids the 24-hour ambulatory electrocardiogram was normal. Hilar lymphadenopathy on the chest roentgenogram has also diminished. Presently, the patient is on 15 mg. of prednisone per day.

### Discussion

Classically, sarcoidosis presents as a syndrome of acute febrile illness with athralgias and erythema nodosum or as a pulmonary disease with bilateral hilar lymphadenopathy that may progress to infiltrates and fibrosis.[5] A disease of young adults, it is characterized by epithelioid granulomatosis without caseation. It is accompanied by chronic inflammatory infiltrate in multiple organs which may resolve or progress to fibrosis. Sarcoidosis is estimated to involve the heart in approximately 20 per cent of autopsy cases of systemic sarcoidosis, while about two

thirds of the patients with sarcoid heart disease die suddenly and unexpectedly, with fully one fourth of such deaths not preceded by any recognizable symptoms.[1,6]

Noncaseating granulomas and focal or diffuse fibrosis have been reported to involve the myocardium, the conduction system (including the atrioventricular node, His's bundle and bundle branches), the papillary muscles, the aortic valve, the mitral valve, and the pericardium.[3,4,7,8] The formation of ventricular aneurysms secondary to extensive scarring has also been reported.[3] Cardiac sarcoidosis extensive enough to cause symptoms has a poor prognosis. Sudden death is frequent in these patients, either as the first and only manifestation or after an illness which is generally not prolonged. Roberts has recently reported 26 autopsied patients with sarcoidosis of the heart, 19 of whom died within 12 months of the first cardiac symptom.[6]

Cardiac sarcoidosis may present with electrocardiographic abnormalities, cardiomyopathy producing congestive heart failure or sudden death. Electrocardiographic abnormalities are conduction disturbances such as atrioventricular block and arrhythmias consisting of frequent ventricular contractions (VPCs), paroxysmal atrial and ventricular tachycardias, disturbances in sinoatrial function (SA block), repolarization disturbances (ST segment and T wave changes) and loss of R wave voltage mimicking myocardial infarction. Stein *et al.* prospectively surveyed the electrocardiograms of 80 young patients with known sarcoidosis and no history of cardiac complaints.[9] They found 41 patients with abnormal records, including evidence of conduction defects, abnormal repolarization and arrhythmias.

As with all the persistent chronic forms of sarcoidosis, the results of treatment are unsatisfactory. The suppressive effect of corticosteroid on the granuloma may help in controlling some of the features of the active phase of the disease: arrhythmias, conduction defects, and electrocardiographic evidence of myocardial dysfunction may be favorably affected, but treatment is in no way curative.[10] Granulomas tend to recur when corticosteroids are withdrawn, demonstrating that these drugs probably do not prevent recurrence. Furthermore, corticosteroids are unlikely to affect the fibrotic scarring which is the end point of persistent granulomatosis.

Cardiac involvement should be checked out routinely in sarcoidosis patients by 12-lead electrocardiograms with long rhythm strips. Patients with sarcoidosis and cardiac symptoms (palpitation, syncope, dizziness or congestive heart failure) should have, additionally, ambulatory electrocardiograms and exercise-testing to elicit and document cardiac arrhythmias that may be premonitory findings prior to sudden death. Treatment with corticosteroids and antiarrhythmic drugs such as quinidine may be beneficial in these patients.[10,11]

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# Immunoprophylaxis Of Pneumococcal Pneumonia

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*Pneumonia is the fifth most common cause of death in the United States and remains the only infectious disease in the 10 leading causes of death. Although many species of bacteria can cause pneumonia in adults, Streptococcus pneumoniae is the predominant etiologic agent of pneumonia. Effective antibiotics and contemporary methods of medical care have markedly decreased, but not eliminated, deaths from pneumococcal pneumonia. Although fewer individuals succumb to pneumococcal infection than in the pre-antibiotic era, case fatality rates from bacteremic pneumococcal disease remain little changed during the past 25 years. Consequently, bacteremic disease remains as important a challenge as ever to physicians.*

THE continuing prevalence of serious pneumococcal disease in the antibiotic era has pointed to the need for the development and use of an effective pneumococcal vaccine. Pneumococcal vaccines were produced and tested for antigenicity and efficacy initially in the 1940s. Although these early vaccines were effective, the discovery of penicillin and its exquisite effectiveness in the treatment of pneumococcal pneumonia eclipsed further investigation of pneumococcal vaccines. In 1978, a new pneumococcal vaccine was approved for use in the general population. Comprised of purified polysaccharide derived from the pneumococcus capsule, pneumococcal vaccine contains polysaccharides from the 14 most prevalent pneumococcal types, and it is recommended for all persons considered at high risk to fatal pneumococcal disease. The pneumococcal vaccine is safe, antigenic and effective; it induces sufficient antibody to the capsular types contained in it to protect recipients from pneumococcal disease caused by these capsular types.

### Rationale for Vaccine Development

Studies on hospital patients with community-acquired pneumococcal pneumonia which were conducted among differing populations during the last three decades demonstrated that the case fatality rate in bacteremic disease was approximately 25 per cent and not decreasing in these 30 years (Table 1). At Kings County Hospital in Brooklyn, Austrian first showed that many deaths from bacteremic pneumococcal disease occurred despite appropriate antibiotic treatment.[1] These investigations provided the initial stimulus for consideration of the need for pneumococcal vaccines. In the late 1960s, Mufson also showed that high case fatality rates from bacteremic pneumococcal disease still prevailed and that the problem was no less important 10 years later.[2]

When these data on inpatient deaths were analyzed by age, case fatality rates from bacteremic pneumococcal disease increased in the older patient (Table 2). The aged patient was at highest risk. At Cook County Hospital in Chicago, one of every two elderly patients with bacteremic pneumococcal disease died.[2] When extrapulmonary foci of pneumococcal infection were present, the case fatality rate was even higher. Case fatality rates from bacteremic pneumococcal disease remain high, although lower than in the pre-antibiotic era. Despite prompt penicillin ad-

**TABLE 1**

**Case Fatality Rate from Bacteremic Pneumococcal Disease Among Adults Admitted to Hospital**

| *Hospital Population* | *Years Tested* | *No. in Group* | *Deaths* | |
|---|---|---|---|---|
| | | | *Number* | *Percent* |
| Chicago* | 1967-1970 | 325 | 90 | 28 |
| Brooklyn** | 1952-1962 | 529 | 131 | 25 |
| Boston† | 1929-1935 | 582 | 451 | 77 |

*Mufson *et al.*[2]
**Austrian and Gold[1]
†Tilghman *et al.*[9]

**TABLE 2**

**Case Fatality Rate by Age from Bacteremic Pneumonia Among Adults, 1967-1970***

| *Age Years* | *No. in Group* | *Deaths* | |
|---|---|---|---|
| | | *Number* | *Percent* |
| 14-29 | 30 | 1 | 3 |
| 30-49 | 130 | 20 | 15 |
| 50-69 | 87 | 33 | 38 |
| 70+ | 15 | 8 | 53 |
| TOTAL | 262 | 62 | 24 |

*Mufson *et al.*[2]

ministration, a significant number of high-risk patients with bacteremic pneumococcal disease die in the first five days of illness.

Non-bacteremic pneumococcal disease is much less severe and few patients die from this infection. This reflects the greater severity of bacteremic illnesses and the difficulty, in particular, of establishing the etiologic agent in pneumonia on the basis of the isolation of *Streptococcus pneumoniae* from sputum alone. Since oropharyngeal carriage of pneumococci occurs commonly (as high as 60 per cent), the isolation of the pneumococci from sputum in pneumonia patients with sterile blood cultures does not necessarily confirm that the illness is pneumococcal pneumonia. The lower incidence of mortality in non-bacteremic pneumonia must be interpreted in this light. Furthermore, most pneumococcal pneumonias are non-bacteremic; bacteremia occurs in only one of five cases. Immunization with pneumococcal polysaccharide vaccine aims at preventing pneumococcal infection, and the vaccine can be expected to reduce non-bacteremic pneumococcal disease and also the rate of oropharyngeal carriage of pneumococci in vaccine recipients.

### Rationale for Production

In the United States, the rationale for production and use of pneumococcal vaccines includes (1) the annual occurrence of nearly 1,200,000 cases of pneumococcal otitis media, of 500,000 cases of pneumococcal pneumonia and of 5,000 cases of meningitis and an estimated 50,000 deaths each year from this infection; (2) the continuing high case fatality rates (overall approximately 25 per cent in bacteremic pneumococcal disease) among high-risk populations which include the aged, individuals with chronic disease, sickle cell anemia and immune disorders; (3) the high number of deaths during the first five days of illness in bacteremic patients, unchanged in the antibiotic era as compared to the pre-antibiotic era; (4) the evolving importance of multiple capsular types with more than three quarters of bacteremic disease now due to 13 types; and (5) the emergence of tetracycline- and penicillin-resistant pneumococci and, more recently, multiple resistant strains of pneumococci including strains resistant to penicillin, chloramphenicol, tetracycline, erythromycin, clindamycin, and cotrimoxazole.[3] Most important of these reasons for vaccine usage are the continuing high case fatality rates in bacteremic disease and the significant number of individuals who die during the first five days of illness despite appropriate antibiotic treatment.

### Composition and Efficacy of Pneumococcal Vaccine

In the late 1960s, a national cooperative study on the predominant capsular types of pneumococci was organized by Austrian. A number of hospitals located across the country reported on the capsular types involved in more than 3,600 bacteremic and extrapulmonary pneumococcal infections. The pattern of common pathogens had changed in the antibiotic era. In the 1930s, pneumococcal types 1, 2 and 3 were associated with nearly 70 per cent of bacteremic pneumococcal pneumonia; all other types caused little disease. Now, 14 capsular types emerge as the cause of more than 80 per cent of these more serious pneumococcal infections. The 14 most common types are, in rank order, 8, 4, 1, 14, 3, 51, 12, 6, 56, 9, 19, 23, 5, and 25.[4] Since any new pneumococcal vaccine must be comprised of the currently prevalent types, these data provided the basis for considering the composition of a polyvalent pneumococcal vaccine for contemporary use.

When viewed from the perspective of this decade, cumulative data from many sources now point to the need to immunize effectively high-risk groups with a potent pneumococcal vaccine. The currently available pneumococcal vaccine contains 50 micrograms of each of 14 capsular polysaccharides, types 1, 2, 3, 4, 6, 8, 9, 12, 14, 19, 23, 25, 51, and 56. Some of the less common types (9, 19, 23, and 25) have been included because they cause disease in children. Type 2 does not appear in the list of most prevalent types; however, it occurs in epidemics and was included in the vaccine for this reason. Type 5 was excluded from the current formulation because it increased reactogenicity of the vaccine (Mufson and Krause, unpublished data).

Adults are capable of responding to multiple antigens simultaneously and producing high levels of specific antibody. Responses to pneumococcal polysaccharide vaccines containing 14 capsular types have been highly satisfactory. Most vaccine recipients develop increased levels of type specific antibody to each capsular type in the vaccine.

Pneumococcal polysaccharide vaccines comprised of multiple capsular types have been shown to be effective in several recent efficacy trials. Among South African adult miners, pneumococcal vaccines were shown in two studies to be more than 78 per cent and 92 per cent effective, respectively, in reducing pneumococcal pneumonia.[5] In the South African study, vaccine was administered to more than 1,500 test individuals, while more than 3,100 individuals re-

ceived control preparations. Among pneumococcal vaccine recipients, pneumococcal pneumonia due to types contained in the test vaccines was markedly reduced. Similar results were obtained in a pneumococcal vaccine trial conducted among adults in New Guinea where pneumococcal pneumonia is especially prevalent.[6] In one study conducted in the United States, a group of children with sickle cell anemia were immunized with pneumococcal vaccine and the occurrence of infection among them compared to its occurrence in unimmunized children with sickle cell anemia.[7] Serious pneumococcal disease occurred only in the unimmunized children. In a recent study among adults in Chicago, pharyngeal carriage of pneumococci was reduced in the pneumococcal polysaccharide vaccine group compared to a placebo group.[8] The contemporary trials have again proven the effectiveness of pneumococcal polysaccharide vaccine in the prevention of disease from the specific capsular types to which vaccines were immunized.

### Recommendation for Pneumococcal Vaccine Usage

Pneumococcal vaccine is recommended for all individuals at high risk to serious pneumococcal disease (Table 3). We recommend it for all individuals over 50 years of age, or individuals of any age with chronic disease, especially respiratory diseases and individuals with sickle cell disease or asplenia or immune disorders. The dose of vaccine for children over two years of age and adults is 0.5 ml. subcutaneously or intramuscularly. It can be given at any time of the year; it is not a "winter use only" vaccine. It can be given on the same occasion as influenza vaccine without affecting antibody responses to either vaccine.

**TABLE 3**

**Recommendations for Usage of Pneumococcal Vaccine**

| |
|---|
| Generally for individuals at increased risk of serious pneumococcal infection: |
| Persons 50 years of age and older |
| Persons of any age over 2 years with chronic illnesses, especially respiratory or heart disease |
| Persons with sickle cell disease |
| Persons with anatomic or functional asplenia |

Pneumococcal antibody persists for at least three years and, at this time, revaccination with pneumococcal vaccine is not recommended more often than once every three years. Whether protective levels of antibody last longer than three years requires continuing evaluation. Adverse reactions to the vaccine are uncommon; usually, only local erythema and soreness, and occasionally low-grade fever, occur. The widespread use of pneumococcal vaccine can provide the most effective means of controlling pneumococcal pneumonia and reducing deaths from bacteremic pneumococcal infection.

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# Special Article

## Risk Management – Loss Prevention*

D. JOHN PECORINO, LL. B.
*Manager, Commercial Insurance Department, Aetna Life & Casualty, Hartford, Connecticut*

The West Virginia State Medical Association endorsed Ætna Life & Casualty as its professional liability carrier and instituted a program on December 1, 1972. Since that time its members and Ætna have been active in the field of loss control and education. There have been formal presentations and articles printed in the *Medical Journal*, videotapes, categorical loss studies, specialized studies, and medical evaluation of claims by review panels.

The purpose of these programs is to control losses and educate physicians on causes of claims. These programs have been successful, especially the claim review panels.

Looking toward the 80's, and taking pride in being innovative, Ætna is now adding a new dimension—Risk Management-Loss Prevention.

The Association, working with Ætna, has set up an ad hoc committee chaired by Jack Leckie, M. D., of Huntington. This committee will work closely with Tom Auman, Account Supervisor for Ætna, and other key people in establishing a viable Risk Management-Loss Prevention Program.

Risk Management deals directly with people failure. It concerns itself with oversights in often routine procedures performed by doctors, nurses and other health care professionals. Risk cannot be eliminated entirely, but much of it can be prevented or curtailed through comprehensive, cooperative, and ongoing efforts by physicians and Ætna.

The basis of the Ætna/WVSMA Risk Management Program is the identification, analysis and evaluation of risk-producing situations, and the selection and implementation of programs designed to reduce such risks to a minimum. In other words, it anticipates and tries to reduce risks. It emphasizes the *art* as well as the *science* of Medicine.

### The Primary Goal

The primary objective of the program is to reduce the number of incidents which result in professional liability claims. To accomplish this objective, Ætna and the Association work together as a team in setting up a workable, comprehensive program that particularly suits organizational needs. We assist and support in planning and implementing all phases of the educational and review programs.

A Risk Management tool kit of informational materials is furnished to the Association. It includes brochures and pamphlets, professional research studies, descriptions of videotapes available and listings of topics for personal presentations given by Ætna speakers—all for use under the combined auspices of the State Medical Association and Ætna Life & Casualty. Claim review panels have been most successful and will continue as a principal activity.

A viable Risk Management Program serves the members of the Medical Association, their patients, and the insurance company. Its ultimate purpose is the enhancement of quality health care. It can influence professional standards, patient rapport, and costs. Following is a summary of its goals and objectives:

*To give physicians a greater awareness that malpractice circumstances have underlying principles which are subject to quality control and are preventable.*

*To study malpractice circumstances comparatively with present-day behavior.*

*To examine and study individual organizational change that may be needed to accomplish these goals.*

*To effect a reduction in the morbidity and mortality resulting from malpractice, based on priorities of categorical frequency.*

### Innovation, Flexibility

To establish and perpetuate a sound Risk Management Program, the Association must be innovative and flexible. A new dimension has been added to the Program; it encourages the Association to identify and bring forth problem areas that Ætna might not have been able to pinpoint. The Association and Ætna then work together to make physicians aware of these prob-

*Remarks taken from a presentation to the Executive Committee of the West Virginia State Medical Association August 24, 1979, at White Sulphur Springs, West Virginia.

lems and to find solutions for them, thus broadening the scope of the entire program.

Physicians now have the opportunity to take an active role in introducing topics on, or setting standards for, improved patient care.

Some additional areas in which the Association can participate are:

1. *A research of areas of vulnerability. Ætna, as professional liability carrier for members of the Association, will consider the cost of implementing special programs if they will materially contribute to the objective of risk management as it pertains to loss control. (There are specific guidelines that have been established for this function.)*

   a. *Poor records — Many lawsuits have been settled or lost because of poor records. A study can be developed to evaluate records, followed by seminars and/or articles reporting these findings, and setting forth what a good record should contain, etc.*

   b. *A study in specialty areas on specific problems:*

      *Orthopedics — tight casts, infection on total hip operations, etc.*

      *Ob-Gyn problems, genetic counseling, brain damage, etc.*

      *Anesthesia—allergies to the anesthesia, etc.*

      *Systems problems in hospitals, etc.*

2. *Evaluation, when necessary, of claim history of Association members and the setting up of criteria with the insurance company for the purpose of insurability, surcharging, deductibles, or curtailing a physician's practice, etc.*

   *Example—A physician having a certain number of claims during a period of time over a specified dollar limit may be surcharged, or a deductible may be given in lieu of a surcharge, or possible restrictions if it appears he or she is having problems with a specific procedure or procedures.*

3. *Investigation of any physician about whom information has been received indicating the possibility that he or she might represent a greater-than-normal risk for professional liability.*

   *Purpose — Develop a communication system to alert the Association to physicians who have problems that might affect patient care. Example — drug addicts, alcoholics, depressed physicians, physicians with any form of infirmity, such as serious heart condition, lapse of memory, etc.*

   *A specific committee should have the responsibility of further investigating these individuals and making recommendations as to their capabilities and what checks and limitations, if any, should be placed on these individuals.*

4. *Investigation and evaluation of the professional qualifications of all new applicants for insurance by:*

   a. *Communicating with prior state licensing board(s), state and/or local medical societies or associations, hospitals, etc., for information that would include any record of curtailment or suspension of practice.*

   b. *Accounting for all prior years of practice.*

   *Purpose: To satisfy the Association and its members that a new applicant is qualified to practice in his or her particular expertise and will be an asset to the Association and the state.*

5. *Establishment of a committee for appeal purposes where any physician can appeal the decision of the committee for insurability, deductibles, surcharging, etc.*

   *An appeal committee would hear, evaluate and make recommendations to Ætna. This committee should develop its own criteria and written guidelines for action it is going to take and how it will implement this action.*

6. *Provisions for continuing medical education (CME) credits to members for attending educational meetings on loss prevention.*

   *Have the Association, through the American Medical Association, set credits for attending formal medical/legal seminars, loss control seminars, emergency room problem or operating room problem sessions, etc.*

**Improved Patient Care**

In formulating and carrying out the functions of such a plan, the State Medical Association continues to strive toward the goal of improved patient care.

The benefits derived from the Ætna/WVSMA program are more than just financial. They can affect professional reputation, rapport, procedures and more. A number of examples can be cited: practice techniques can be improved, resulting in better patient response; accidental losses can be prevented or controlled, when and if they occur; channels can be opened for improved doctor-patient rapport; record-keeping can be improved, making vital information clear and understandable on a day-to-day basis, as well as providing a sound basis for defense in the event of a liability claim. In short, the benefits of such a program can make a difference. Savings in both dollars and manpower can be achieved by not having to divert time and energy in the defense of avoidable claims and lawsuits, thus minimizing the cost of professional liability insurance.

To realize the benefits of a Risk Management Program, every health care provider must be made aware of what tools are available and how to use these tools in the most advantageous manner to achieve the desired results.

There are two basic ingredients necessary if the program is to be a success:

*Commitment* and *involvement.* Total commitment is necessary from all physicians at the state, district, county and individual level. Special efforts are needed to encourage all physicians to participate. Involvement means working together. This should include aggressive action in selecting key educators and motivators to participate in diverse programs that get the message to all physicians and health care providers, so that they will think twice, automatically, before they act. Through dedicated and inspired cooperation, commitment and involvement, there is no limit to what we can achieve toward the enhancement of improved patient care. Ætna and the Association are dedicated to the same goal—to reduce the possibility of patient injury while optimizing the benefits of quality patient care.

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*To be engaged in opposing wrong affords but a slender guarantee for being right.*

—William Gladstone

*A Continuing Medical Education Event!*

# The 13th Mid-Winter Clinical Conference

Holiday Inn Charleston House

600 Kanawha Boulevard, East, Charleston, W. Va.

**January 25-27, 1980**

**WEST VIRGINIA STATE MEDICAL ASSOCIATION**
**WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE**
**MARSHALL UNIVERSITY SCHOOL OF MEDICINE**

## WATCH THE JOURNAL FOR PROGRAM DETAILS

THE PROGRAM CO-CHAIRMEN again are Ralph H. Nestmann, M. D., and Joseph T. Skaggs, M. D., both of Charleston. Also on the Program Committee are William O. McMillan, Jr., M. D., of Charleston, Maurice A. Mufson, M. D., Huntington; Robert L. Smith, M. D., Morgantown, and C. Carl Tully, M. D., South Charleston.

THE REGISTRATION FEE of $25 for the entire conference will be charged all registrants except nurses, medical students, interns and residents. Advance registration is requested, and please make checks payable to "WEST VIRGINIA STATE MEDICAL ASSOCIATION."

ACCREDITATION: Attendance will be acceptable for 13 hours of Category 1 credit toward the Physician's Recognition Award of the American Medical Association; and the program also is approved for 13 Prescribed hours by the American Academy of Family Physicians.

OVERNIGHT ACCOMMODATIONS: Physicians should communicate directly with the reservation manager of the hotel or motor inn of their choice, with the conference headquarters hotel setting aside rooms for registrants.

FOR ADVANCE REGISTRATION, please complete the form below and mail to: WEST VIRGINIA STATE MEDICAL ASSOCIATION, P. O. BOX 1031, CHARLESTON, W. VA. 25324.

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Please register me for the 13th Mid-Winter Clinical Conference in Charleston, W. Va., January 25-27, 1980. My $25 registration fee is (is not) enclosed.

*Name (please print)* _____ *Specialty* _____

*Address* _____ *City* _____

*A message from . . .*

*The President*

## PROFESSIONAL LIABILITY

SOMEONE asked me recently what the Medical Association's attitude might be in regard to the 16.9-per cent malpractice premium increase. I though the question rather curious in its innocence, but simply replied that we didn't like it.

It developed, after another question or two, that the real concern was not the plight of the doctor but rather the possibility that this cost increase might be passed along to the patient. I predicted that, indeed, this cost would be passed along and added that this is what the insurance companies seemed to be doing to us.

The incidence of claims filed has increased along with the cost of claims resolution for the State Association professional liability program. A startling figure to consider is that at least one out of every 10 West Virginia doctors is presently facing a court appearance to defend himself against allegations of malpractice.

We live in litigious times. The litigiousness is encouraged by laws and courts which hold that someone must be responsible and thus liable for every misfortune that befalls mortal man. This is a happy if muddle-headed view of what has been otherwise described as a vale of tears in that it assumes the world can be made perfect if only we listen to legal counsel.

The notion that the act of breathing creates an entitlement to a share in the good things in life, a notion nurtured by politicians, forms the sturdy foundation for a litigious superstructure. Are not generous laws the product of government? And the courts which enforce them an arm of government? Is it not the principal role of government to protect us? Sustain us? Provide for us? To exact retribution for any injury or slight that might befall us thus becomes almost an act of citizenship rather than something guilt-ridden.

Physicians are inclined to the rather paranoid conclusion that we are the only targets of opportunistic victims of misfortune. Actually, we may have been the first or the principal targets, but we're not the only targets. Suing one another has become a cultural phenomenon of our times.

One bright spot in this latter observation is the fact that the legal profession is now suffering a pestilence of suits directed at its own members. Their malpractice rates are skyrocketing. The asp has turned and bitten its own tail! It is difficult to suppress a small chuckle at the groans and other sounds of suffering from our legal brethren so sorely afflicted.

It is especially difficult to suppress the small hope that their suffering might lead to the salvation of the rest of us through the encouragement their present pitiable condition might offer them to bring about certain needed reforms in our tort system.

Stephen D. Ward, M.D.

STEPHEN D. WARD, M. D., *President*

The West Virginia Medical Journal

# Editorials

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible.

## CONFIDENTIALITY AND THE PSROs

Ominous is an adjective hardly adequate to describe the consequences of a ruling handed down by Judge Gerhard Gesell in a District of Columbia Federal District Court in late September.

In a suit filed by Ralph Nader's Public Citizens Health Research Group, Judge Gesell ruled that PSROs do not qualify for disclosure exemption under the Freedom of Information Act. The ruling specifically applies only to the District of Columbia PSRO. The precedent it sets, however, opens every PSRO data bank to public scrutiny.

What this means is that no longer can any physician guarantee the confidentiality of any information he chooses to include in the medical record of any patient hospitalized under his care. Privacy is apparently unaffordable under health care policies evolving in this country.

Physicians have always set great store on protecting and ensuring the privacy of information gathered in the course of understanding, diagnosing and treating the ills of patients under their care. Courts until now have recognized the wisdom of avoiding any hindrance of free and willing transmission of candid information between a patient and physician, and have held all such information privileged.

Judge Gesell expressed some doubt that his ruling would result in the withdrawal of voluntary participation of doctors and hospitals in PSRO activities. That doubt can be based only on a naive misunderstanding of physicians' attitudes about PSRO. If Judge Gesell's ruling is to stand, PSRO as we know it is dead.

Since inception of PSRO activity, physicians have given it grudging approval and cooperation. In spite of their doubts and fears of interference and second guessing on the part of reviewers, physicians have given honest participation and candid criticism of their own and colleagues' work as part of the review process. They have done this on the basis of the manifest educational benefits to be derived from such a review and comparison of work. There will be no cooperation now that the threat of penalty, shame or public exposure has been made a part of the equation.

It might be argued that the same review can be accomplished without physician participation. Threats of such non-professional review have been made in some areas in order to encourage physician participation. No one has yet come up with an individual, group or agency with the requisite capabilities, however. Perhaps some individuals could be trained from scratch. Perhaps, too, some genius can devise ways to obviate the multiple, very apparent avenues available to sabotage or passively resist such substitute review efforts.

There should be no doubt whatsoever that if anything resembling PSRO activity is considered desirable and is to be carried on, physicians must find it acceptable. There should be no doubt that physicians find Judge Gesell's ruling unacceptable.

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## DEATH OF A VICTIM

Chad Green, a three-year-old leukemia patient, died this month in Tijuana, Mexico.

The blond, boisterous youngster was featured in two stories in this newspaper. In February, we reported Chad's life as a "fugitive from justice". Last month, we reported his mother's decision to take Chad off all chemotherapy and put her faith "in a higher power. God tells us Chad is cured."

It has been eight months since Diana and Gerald Green defied a Massachusetts court order, removed their son from the care of childhood leukemia specialists at Massachusetts General Hospital, and fled to a Tijuana laetrile clinic.

In that time, the child came to personify the controversy over laetrile. A month ago, his parents pronounced him cured. The Mexican physicans, however, expressed concern that the parents had again cut off the chemotherapy.

Chad's death came suddenly. The issues he personified, however, will linger.

Childhood leukemia is no longer a death sentence. Two years ago, physicians at Massachusetts General told the Greens that Chad's chances of cure—through chemotherapy—were "substantial," better than 50-50. The Greens chose not to believe this.

Having failed at persuasion, hospital officials obtained a court order to act in the child's behalf. The Greens took their son into Mexican exile.

After the youngster's death, Gerald Green told reporters, "What we should be looking at here is a system that forces a child into exile. Chad was depressed. He wanted to go home. This was his way of going home."

A hematologist at the laetrile clinic told reporters, "If the boy had remained on chemotherapy, he would still be alive today."

What will be examined here are parental rights versus the rights of their children. The Greens exercised their parental rights, convinced they did the right thing for Chad in abandoning conventional chemotherapy.

It is disturbing that the medical advice of one of the world's major hospitals should be distrusted. That parents, encouraged by others in the laetrile movement, should feel that distrust so profoundly as to put their child's life at risk, raises a challenge to medical science.

The challenge to medicine is to become ever more persuasive, ever more reassuring, in the face of unreasoning fear. That is the only way parents' important rights in the welfare of their children can be preserved. . . . *American Medical News, October* 26, 1979

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**ORGANIZATION**

John B. Thomison, M. D., of Nashville, Editor of the *Journal Of The Tennessee Medical Association*, took some time recently for a few reflections going back to the John F. Kennedy Administration. His thoughts, which follow, should have some meaning for physicians in West Virginia and elsewhere, as well as in Tennessee. Here are those thoughts.

"The new Camelot was ushered in with the words of its reincarnated king: "Ask not what your country can do for you. Ask rather what you can do for your country." Camelot has fallen in ruins, and weeds have grown up through the pavement, but whether or not you loved and revered the author of those words, they have a timeless ring.

"Somehow, we are always looking for someone to do something for us—sure, and aren't we the ones paying the dues? We forget that "they" is "us," to paraphrase Pogo. Only by fulfilling our responsibilities will *medicine* do anything for us, and in fact the only thing we really need it to do for us is to help us take the best possible care of our patients.

"Medicine, though, in such a context, has no meaning unless we speak of *Organized Medicine*, which is somehow looked upon by some as a pejorative term. It really escapes me why being disorganized is better, as it is not considered so in any other area of life or work.

"Almost nothing can be accomplished anywhere without organization, and those who are not a part of organized medicine are contributing to the disorganization of the medical community. This works to the detriment of physicians and patients alike.

"Those who are not for us are against us. But those who are against us are against themselves as well."

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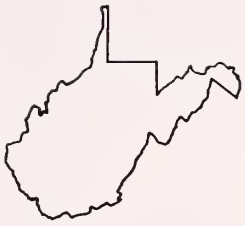
**RISK MANAGEMENT**

We call to your attention a special article entitled *Risk Management—Loss Prevention* beginning on page 360 of this issue of *The Journal*. The material outlines a new dimension in the Medical Association-sponsored professional liability insurance program for which Aetna Life & Casualty is the carrier. It's a topic about which you will be hearing much, much more.

There frankly are new storm clouds on the professional liability, or malpractice, insurance horizon. Reference to new upward trends in frequency and severity of malpractice claims has appeared in numerous publications in recent months. The frequency and severity both have shown increases in West Virginia, and there's solid reason for concern here.

The goal of risk management is identification, analysis and evaluation of risk-producing situations; and the selection and implementation of programs designed to reduce such risks to a minimum. The State Medical Association's Ad Hoc Committee on Professional Liability is at work with Aetna on fashioning such a program for West Virginia. To accomplish this goal will require not only the interest, but the participation, of physicians throughout the state.

# GENERAL NEWS



## Drug Abuse, Smoking, Alcoholism Conference Topics

Psychiatrists from North Carolina and Maryland will be two of the speakers for public and physicians' sessions on "Drug Abuse, Smoking and Alcoholism" during the 13th Mid-Winter Clinical Conference.

The annual continuing medical education event, sponsored by the State Medical Association and West Virginia and Marshall University Schools of Medicine, will be held January 25-27 in Charleston at the Holiday Inn Charleston House.

Jack M. Rogers, M. D.

Maxwell N. Weisman, M. D.

Jack M. Rogers, M. D., Associate Professor in Psychiatry, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, North Carolina, will speak on "Drugs and the Now Society" during the Friday evening, January 25, session for the general public, it was announced by the Program Committee.

"The Doctor-Drug Dilemma" will be Doctor Rogers' topic when he addresses physicians Saturday morning.

The Program Committee also announced that Dr. Maxwell N. Weisman of Baltimore will present papers on "Alcoholism and the Teenager" for the Friday evening public session and "The Alcoholic Physician: The Problem, Recognition and Treatment" Saturday morning.

Doctor Weisman is Medical Director for the Alcoholism Control Administration, Department of Health and Mental Hygiene, State of Maryland, Baltimore.

The conference will begin with a 2 o'clock session Friday afternoon and continue through noon on Sunday.

Held concurrently with the 8 o'clock public session Friday evening will be a physicians' session, a "CPR Workshop," which will be conducted by Emergency Medical Services Operation, Region 34, Inc. (EMSOR, Inc.) of Charleston.

Dr. Jack R. Page, Chief, Department of Emergency Medicine at Charleston Area Medical Center, will open the workshop with a talk on the importance of the CPR program and standardizing CPR techniques.

The remainder of the time will be provided for physicians to work on the "Recording Annie" to see how closely their CPR techniques meet those of the American Heart Association.

Presiding for the workshop will be William H. Carter, M. D., Cardiologist, Charleston Area Medical Center; Clinical Professor of Medicine, West Virginia University School of Medicine, and President, American Heart Association, West Virginia Affiliate.

### Drug Abuse Consultant

Doctor Rogers is certified by the American Board of Psychiatry and Neurology, and is a Fellow of the American and Southern psychiatric associations.

At Bowman Gray, he also is Coordinator of Alcoholism Training and, at Forsyth Memorial Hospital in Winston-Salem, is Director of Psychiatric Education. He was consultant for the Adolescent Drug Abuse Program of Forsyth County, in Winston-Salem, in 1973-75.

From 1975 to 1978, Doctor Rogers was a faculty member of the American Psychiatric Association's annual continuing medical education course on "Alcoholism and Drug Abuse in Clinical Practice."

A native of Gadsen, Alabama, he was graduated from the University of Alabama and re-

ceived his M. D. degree in 1958 from Bowman Gray. He interned at University Hospital and Hillman Clinic in Birmingham, Alabama, and completed residencies at Bowman Gray and at Dorothea Dix Hospital in Raleigh, North Carolina.

### Consultant, Lecturer

Since 1966, Doctor Weisman has been consultant and lecturer for the Rutgers University Summer School on Alcohol Studies and, since 1977, has been consultant and lecturer for the Utah Summer School on Alcohol Studies in Salt Lake City.

He is a Diplomate of the American Board of Neurology and Psychiatry in Psychiatry, a Fellow of the American Psychiatric Association, and a member and Past President of the American Society on Alcoholism.

Doctor Weisman was the recipient of the Citation of Merit from the Malvern Institute in 1976, and the 1978 Award of the Council of State and Territorial Alcoholism Authorities in recognition of outstanding services to the organization.

He is a member of the Department of Psychiatry of Johns Hopkins Hospital and the University of Maryland in Baltimore.

Among numerous professional associations, he is a member of the Board of Directors, National Council on Alcoholism, Inc.; the National Commission on Credentialing of Alcoholism Counselors, and the Medical and Chirurgical Faculty, Subcommittee on Alcoholism and the Committee on the Rehabilitation of Impaired Physicians, State of Maryland.

A native of New York City, Doctor Weisman was graduated from the College of City of New York and received his M. D. degree in 1958 from the University of Amsterdam, The Netherlands. He served his internship and residency at University Hospital in Baltimore.

Doctor Weisman is the author of a number of scientific articles, including "Alcoholism and Treatment," appearing in the February, 1979, issue of the American Journal of Psychiatry.

### Infectious Diseases

The opening session on Friday afternoon will be entitled "Infectious Diseases Update." As announced previously, two of the speakers for this session will be Drs. Robert H. Waldman, WVU Professor and Chairman of Medicine, and John C. Partin, Professor of Pediatrics, College of Medicine, University of Cincinnati, and Director of the Division of Gastroenterology at the University's Children's Hospital.

Doctor Waldman's topic will be "Recent Advances and New Problems in Diagnosis and Treatment of Meningitis," while Doctor Partin will discuss "Reye's Disease, a Primary Care Problem: Diagnosis and Treatment."

Saturday afternoon will be devoted to a session on "Current Controversies in Medicine." Speaking on a medical controversy, involving diabetes, will be Drs. Margaret J. Albrink of Morgantown, WVU Professor of Medicine, and Bruce S. Chertow of Huntington, MU Professor of Medicine and Chief, Section of Endocrinology and Metabolism. A surgical controversy (in the treatment of breast cancer) will be aired by Drs. Kenneth S. Scher of Huntington, MU Assistant Professor of Surgery, and Alvin L. Watne of Morgantown, WVU Professor and Chairman of Surgery, and Charleston Foundation Professor of Cancer Research.

Doctor Albrink's subject will be "The Dietary Treatment of the Adult Onset Diabetic," with Doctor Chertow to talk on "Control of the Blood Sugar—Is That All There Is?"

"Conservative Surgery for Breast Cancer" will be the title of Doctor Scher's presentation, while Doctor Watne will discuss "The Results of Radical Operations for the Cure of Cancer of the Breast."

A cash bar and hors d'oeuvres will be offered Saturday beginning at 5:30 P. M., but there will be no Saturday night banquet and speaker this year.

"Non-invasive Techniques" will be the title of the concluding Sunday morning session. Two of the speakers and their topics will be "The Non-Invasive Peripheral Vascular Laboratory"—Ronald A. Savrin, M. D., WVU Assistant Professor of Surgery, and Director, Non-Invasive Peripheral Vascular Laboratory; and "Computed Tomography"—James T. Smith, M. D., Charles-

## Public Session Friday

Sessions for the general public and physicians will be held concurrently at 8 P. M. on Friday, January 25, during the 13th Mid-Winter Clinical Conference.

An article in the November issue of *The Journal* (page 341) mistakenly indicated the public session would be held on "Wednesday." *The Journal* regrets this error.

ton radiologist, and Director of the Computed Tomography Laboratory at Charleston Area Medical Center.

**Other Conference Information**

The conference registration fee will be $25 for physicians, with no fee charged for nurses, medical students, interns and residents. Advance registration is requested, with checks made payable to the West Virginia State Medical Association.

The program meets the criteria for 13 hours of credit in Category 1 of the Physician's Recognition Award of the American Medical Association, and also is acceptable for 13 hours of prescribed credit by the American Academy of Family Physicians.

Serving on the Program Committee are Drs. Ralph H. Nestmann and Joseph T. Skaggs, both of Charleston, Co-Chairmen, and Drs. William O. McMillan, Jr., Charleston; Maurice A. Mufson, Huntington; Robert L. Smith, Morgantown, and C. Carl Tully, South Charleston.

The committee has received assistance from WVU Charleston Division staff members J. Zeb. Wright, Ph.D., Coordinator of Continuing Education, Department of Community Medicine; and Sharon A. Hall, Conference Coordinator.

Final conference arrangements, including remaining speakers, will be provided in the January issue of *The Journal.*

**Dr. Gilbert A. Friday, center, pediatric allergist from Pittsburgh, chats with Dr. John W. Traubert, left, Chairman of the Department of Family Practice, West Virginia University School of Medicine, and Dr. William H. Wanger of Beckley during a coffee-apple break at the fifth annual Hal Wanger Family Practice Conference held recently at the Medical Center. Doctor Friday was among six guest speakers. The conference was named for Doctor Wanger's father, the late Dr. Hal Wanger, who was a prominent Eastern Panhandle family physician.**

# *Review A Book*

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 1031, Charleston 25324. We shall be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

*One Hundred Years of Physiology at West Virginia University, 1869-1969*, by Edward J. Van Liere, Ph. D., M. D. 124 pages. Price $10. West Virginia University Foundation, Morgantown, West Virginia 26506. 1979.

*The Nervous System, 2nd Edition*, by William F. Ganong, M. D. 243 pages. Price $11. Lange Medical Publications, Los Altos, California 94022. 1979.

*Current Surgical Diagnosis and Treatment, 4th Edition*, by J. Englebert Dunphy, M. D., and Lawrence W. Way, M. D. 1162 pages. Price $19. Lange Medical Publications, Los Altos, California 94022. 1979.

*Understanding Hysterectomy: A Woman's Guide*, by F. G. Giustini, M. D.; and F. J. Keefer, M. D. (Introduction by Elizabeth B. Connell, M. D.). 166 pages. Price $7.95 (paper). Walker and Company, 720 Fifth Avenue, New York, New York 10019. 1979.

*Vitamin C Against Cancer*, by H. L. Newbold, M. D. 363 pages. Price $10.95. Stein and Day, Briarcliff Manor, New York 10510. 1979.

## AMA Winter Scientific Meeting In Texas

The 33rd Winter Scientific Meeting of the American Medical Association will be held January 12-15 in San Antonio.

The scientific program for the meeting was published in the October 26 Journal of the American Medical Association.

The meeting will offer attending physicians a multi-discipline educational experience. Many major specialty societies will be involved in the design of many of the continuing medical education courses and symposia to be offered during the four-day session.

The scientific program will include 45 postgraduate courses, 20 symposia, Video Clinics, cardiopulmonary resuscitation courses, scientific exhibits, and other special programs.

Symposia topics will include social drinking and chronic alcoholism, what the doctor can do to help his patients stop smoking, international terrorism and rescue, how to cope with the impaired physician, drug problems in the teenager, latest findings in treatment of cancer, health effects of exposure to radiation from the viewpoint of the practicing physician, bites and stings, hypochondriacs in the health care picture, update of plastic surgery, and obesity and what can be done about it.

The courses will offer a wide variety of subject matter from which the physician can select subjects in which he feels the need of refresher training.

Among the highlights of the program are:

—Hypertension Update: 1980. Physicians will be briefed on the recommended approach to office treatment of the newly discovered patient with high blood pressure. With national educational efforts in the last few years aimed at finding those with high blood pressure, physicians are faced with many more cases in their day-to-day practice.

—Controversies in the diagnosis and management of breast cancer. The roles of surgery, radiation treatment, and use of hormones and drugs to treat breast cancer will be evaluated in terms of new approaches in which radical surgery often is being omitted for other treatments.

—Practical training for the physician in dealing with four common types of cancer. These are cancers of the breast, lung, colon and pancreas. Diagnostic techniques will be explored, and approaches aired to determine the best course of treatment.

—Diabetes mellitus: The course is directed to the physician in general practice. It will stress the need for appropriate diagnosis of diabetes, and the use of diet, oral agents and insulin in treatment.

—Behavioral problems in children and adolescents. The underlying physical and emotional disorders that result in hyperactivity, feeding and sleeping disorders, bed-wetting, and misbehavior will be studied.

Further information on the scientific meeting is available from the Department of Scientific Assembly, American Medical Association, 535 N. Dearborn Street, Chicago, Illinois 60610.

## Continuing Education Activities

Here are the continuing medical education activities listed primarily by the West Virginia University School of Medicine for part of 1980, as compiled by Dr. Robert L. Smith, Assistant Dean for Continuing Education. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of The Journal.)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the Charleston and Wheeling campuses as well as in Morgantown. Further information about these may be obtained from: Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S.E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or, Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

**1980**

| | | |
|---|---|---|
| Mar. 21 | Charleston | 7th Annual Newborn Day |
| Mar. 28-29 | Morgantown | Neurosciences Teaching Day |
| April 18 | Morgantown | 6th Annual ENT Teaching Day |
| April 19 | Wheeling | Annual Postgraduate Day in Surgery |
| April 26 | Morgantown | W. Va. Assn. of Pathologists, Scientific Session |

**Visiting Professors**

(Morgantown)

Jan. 11 *Dept. of Radiology*: Philip Strax, M. D., Medical Director, Guttman Institute; Associate Clinical Professor of Community and Preventive Medicine, New York Medical College, New York City.

April 3-4 *Dept. of Obstetrics and Gynecology*: "Perinatal Outcome in Pregnant Epileptics" and "Hyperthyroidism in Pregnancy," Luis B. Curet, M. D., University of Wisconsin, Madison.

April 18 *Dept. of Radiology*: Melvin Clouse, M.D., Chairman, Department of Radiology, New England Deaconess Hospital, Boston.

*Dept. of Anesthesia*: One Thursday each month, 4 p. m.

*Dept. of Medicine*: Variable—incorporated in Grand Rounds

*Dept. of Family Practice*: Variable —incorporated in Grand Rounds

## Named Speaker of National Emergency Group

Jack R. Page, M. D., Chief, Department of Emergency Medicine at Charleston Area Medical Center, was elected Speaker of the Council during the recent annual meeting of the American College of Emergency Physicians in Atlanta. Doctor Page, a charter member of the College, has participated actively in two state chapters, West Virginia and California, and most recently served for two years as Vice Speaker. The Council meets annually to consider resolutions concerning emergency medicine and consists of delegates from the College's 50 chapters. Doctor Page, as Speaker, will preside over the annual meeting. The College, with over 9,000 members, will hold its next meeting in Las Vegas, Nevada, in September, 1980.

Jack R. Page, M. D.

Doctor Page graduated in 1970 from Loyola-Stritch School of Medicine in Chicago. After completing his postgraduate training and a tour in the United States Navy, he began the full-time practice of emergency medicine in Long Beach, California. He came to West Virginia in 1976 and assumed the position of Director of Emergency Services at Appalachian Regional Hospital in Beckley.

Doctor Page assumed his present post at CAMC in August, 1978. He and his wife, Bernadette, also an emergency physician, are the parents of two children, Jeremy and Sara.

## AMA Health Legislation Meeting In January

The sixth American Medical Association Health Legislation Meeting will be held January 3-5 in Phoenix, Arizona.

The meeting is designed for medical society executives and officers, government relations personnel, lobbyists, and legal counsel; physician members of state and specialty society legislative committees, and state legislators.

A group of speakers with a wide variety of backgrounds and viewpoints will discuss such topics as:

State Government Regulation of Graduate Medical Education; Improving Performance in the State Legislature through Better State Medical Society-State Specialty Society Liaison; Federal versus State Health Legislation — What's Ahead? (Regulation versus Competition, Cost Containment, Health Planning);

Practice in Underserved Areas: Legislative and Regulatory Initiatives; Medical Malpractice: Prevention of Claims-Reducing the Need for Legislation; Prescription Drug Abuse: Legislative and Regulatory Initiatives; Testifying Before Your State Legislature; and Overview of Recent State Health Legislation.

Registration and other information is available from: Legislative Department, American Medical Association, 535 N. Dearborn Street, Chicago, Illinois 60610.

## Computer-Controlled Radiation Therapy Beneficial

Computer-controlled, precise-dose radiation therapy which may assist in controlling cancers by zeroing in on the malignancy without producing complications elsewhere is reported in a recent issue of the American Medical Association publication, "Computers and Medicine."

"Successful treatment is predicated on the accurate determination of the tumor volume," said Martin B. Levene, M. D., of Harvard Medical School's Joint Center for Radiation Therapy. "The ability of computer-controlled therapy to precisely treat designated volumes gives indication that it will be reliable and safe."

For a sample issue and a cumulative index write to: Computers and Medicine, American Medical Association, 535 N. Dearborn Street, Chicago, Illinois 60610.

## Canadian Physician Visiting Professor In Charleston

Harry Medovy, M. D., of Winnipeg, Manitoba, Canada, spent most of the month of November in a pediatric visiting professorship at the Department of Pediatrics, West Virginia University Medical Center, Charleston Division.

Doctor Medovy, Emeritus Professor and Head, Department of Pediatrics at the University of Manitoba School of Medicine, was scheduled to return home in early December.

Doctor Medovy also serves as consultant in pediatrics at the Children's Centre of Winnipeg and as consultant for Child Care Services, City of Winnipeg.

The prominent physician, author and lecturer was the recipient of the Distinguished Service Award of the Manitoba Medical Association in 1975 and the Queen Elizabeth Jubilee Medal in 1978. Among many positions held, he has been Chairman of the Council of the American Pediatric Society (1969).

## State EENT Group Names Spring Speakers

Nine out-of-state speakers have been announced for the 1980 National Spring Meeting of the West Virginia Academy of Ophthalmology and Otolaryngology.

The meeting will be held April 20-23, 1980, at the Greenbrier in White Sulphur Springs.

Ophthalmology speakers will be Drs. Perry S. Binder, San Diego; Oliver Dabezles, New Orleans; Kenneth T. Richardson, Jr., Anchorage, Alaska; C. William Simcoe, Tulsa, Oklahoma, and Johnny Justice, Houston.

Subjects to be discussed will include intraocular lenses, extended-wear contact lenses, retinal photography, fluorescein angiography, refractive keratoplasty, glaucoma, and computerized visual fields.

Otolaryngology speakers will be Drs. Gerald Healy, Boston; Fred Owens, Dallas; Claude Warren, Mobile, Alabama, and James Willoughby, Kansas City, Missouri.

The West Virginia Chapter officers are Drs. Moseley H. Winkler, Charleston, President; James L. Bryant, Clarksburg, Vice President, and J. Elliott Blaydes, Bluefield, Secretary-Treasurer.

The registration fee of $175 should be made payable to the West Virginia Academy of Ophthalmology and Otolaryngology, and addressed to Dr. J. Elliott Blaydes, Blaydes Clinic, Frederick and Woodland, Bluefield 24701.

## AMA Challenges FTC Restraint Of Competition Order

The American Medical Association has responded to a Federal Trade Commission ruling on the Association's role in physician advertising by commending the Commission's recognition of the AMA's "valuable and unique" role with respect to preventing false and misleading advertising. At the same time the Association challenged the allegation that it has restrained competition by restricting advertising among its members.

"We are pleased that the Commission has endorsed the position the Association has taken throughout the case, that the profession and the public are well served with quality care if medical societies are involved in seeing that information that is advertised is truthful and nondeceptive," said Newton N. Minow, representing the AMA. "However, the AMA must continue to take issue with the Commission's decision that the ethical principals of the Association have prevented physicians and medical organizations from disseminating information on the prices and services they offer. The AMA Principles of Medical Ethics do not proscribe advertising, but they do prohibit false and misleading advertising that may adversely affect quality care to patients," said Minow.

"To the extent that the FTC order of October 24 continues to prevent medical societies from taking action against deceptive or other unethical practices that may harm or mislead patients, the AMA will ask the U. S. Court of Appeals to reverse the order," Minow said.

The Commission's decision was based on the FTC's complaint issued in December, 1975. That complaint charged the AMA with violating Section 5 of the FTC Act by restricting the ability of its members to advertise for and solicit patients, and to enter into various contractual arrangements in connection with the offering of their services to the public.

## Questions Invited For TV Interview Series

Do you have a health question that you feel should be answered for the general public?

WCHS-TV (Channel 8) in Charleston has incorporated a health interview series into the Noonday Eyewitness News Program, hosted by Marilyn Barrett. Sponsored by the Charleston Area Medical Center, West Virginia University Medical Center/Charleston Division, and the Kanawha Medical Society, the face-to-face, live interviews are scheduled at 12:15 P. M. on Wednesdays on the following dates: December 12 and 26. Beginning in January, if the project proves successful, the number of interviews will be increased to include every Wednesday.

Suggested questions which are appropriate to a general noonday audience are welcomed by the steering committee, composed of Drs. Herbert H. Pomerance (West Virginia University/Charleston Division), Thomas G. Potterfield (CAMC), and Carl J. Roncaglione (Kanawha Medical Socity), or J. Zeb. Wright, Ph. D. (West Virginia University/Charleston Division), program coordinator.

## Average Doctor's Work Week Now 50.3 Hours

The average office-based American physician now works 50.3 hours and provides 130.6 patient visits each week, according to the new edition of the American Medical Association's *Profile of Medical Practice 1979*.

The AMA's volume is a companion piece to another AMA book, *Socioeconomic Issues of Health 1979*, published earlier this year.

The average office-based physician worked 47 weeks in the year, with five weeks off for vacation and for attending continuing medical education seminars.

Surgeons in 1978 worked the longest hours per week, 53.2. Physicians in larger cities worked shorter hours than those in small towns or rural areas.

Of the average of 130.6 patient visits per week, 92.1 were in the office and 36.2 in the hospital in 1978.

There were 421,278 physicians in the United States and possessions as of December 31, 1977, the new book shows. Of these, 78.9 per cent (332,393) were engaged in patient care as their primary activity. Some 7.4 per cent (31,226) were not involved principally in patient care. The others were inactive, not classified or had no known address. Those not in patient care included doctors in medical teaching, administration and research.

Some 12.8 per cent (50,088) of all American physicians lived in California. New York was second with 45,147, or 11.6 per cent.

There were 86,879 foreign medical graduates in the United States and possessions as of December 31, 1977. This accounted for 20.6 per cent of the total physician population.

The book was prepared by the AMA's Center for Health Services Research and Development. Editors are John C. Gaffney and Gerald L. Glandon.

Copies of *Profiles of Medical Practice 1979* may be purchased from Center for Health Services Research and Development, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610. Individual copies are $6.

## Sports Medicine For Primary Care Physician

The 21st American Medical Association Conference on the Medical Aspects of Sports will be held January 12 in San Antonio.

"Sports Medicine for the Primary Care Physician" will be the theme of the conference.

Sports medicine experts from across the nation will discuss such topics as women in sports, the physical examination for the young athlete, heart evaluation of the young athlete, elbow injuries in young ball players, knee injuries, back injuries, injuries to the hand, the role of radiology and nuclear medicine in evaluating athletic injuries, and prevention of injuries and violence in sports.

Keynote luncheon speaker for the conference will be Kenneth H. Cooper, M. D., Executive Director of the Aerobics Center, The Cooper Clinic, Dallas. Doctor Cooper is a national authority on exercise and physical conditioning.

Use of regular daily exercise is being studied extensively as a means of reducing or delaying the onset of heart disease, Doctor Cooper has declared. Other systems of the body also gain from regular exercise. But an exercise program should be properly implemented for a safe start. Doctor Cooper's latest book, *The Aerobic Way*, presents new data gained from his work at the Aerobics Center in Dallas.

Dr. Donald Cooper, of Stillwater, Oklahoma, emphasized that we are seeing less and less of pre-participation physical examinations today. Laws such as the requirement that women be given equal emphasis in school sports have

brought participation in sports by some for which it is dangerous, he said.

Prevention of injuries in football, says Dr. Joe Torg of Philadelphia, depends greatly on the philosophy of the coach. The older, more mature coach who sees the game as part of the educational experience, to be played as a contest of skill, strategy, team work and discipline will have few injuries, Doctor Torg notes.

Other program participants will include Leatha Y. Hunter, M. D., orthopedic surgeon, University of Michigan, Ann Arbor; William B. Strong, M. D., pediatric cardiologist, Medical College of Georgia, Augusta; Kay E. Wilkins, M. D., orthopedic surgeon, University of Texas Medical School, San Antonio.

Bernard R. Cahill, M. D., orthopedic surgeon, Peoria, Illinois; Arvo Neidre, M. D., orthopedist, University of Texas Medical School, San Antonio; Jerry D. Julian, M. D., orthopedic surgeon for the athletic department of the University of Texas, Austin; Frank C. McCue, M. D., orthopedist and rehabilitation specialist, University of Virginia Medical Center, Charlottesville, Virginia; Jack W. Bowerman, M. D., radiologist, of Johns Hopkins School of Medicine, Baltimore; S. Harvard Kaufman, M. D., psychiatrist, Seattle, Washington.

Further information on the conference is available from the Department of Environment, Public and Occupational Health, American Medical Association, 535 N. Dearborn St., Chicago, Illinois 60610.

## Name New Executive Director For Heart Association

Kenneth I. Tingley has been named Executive Director of the American Heart Association, West Virginia Affiliate.

Tingley has been with American Heart Association affiliates for 10 years. In his seven years with the Indiana Affiliate, he held positions first as Field Director and then an Division Director. Most recently, he was Special Events Coordinator, then Director of Field Services, for the Michigan Heart Association.

Tingley holds a B. A. degree from Ball State University and a master of divinity from Southern Baptist Theological Seminary. He served 12 years in the ministry of American Baptist churches.

Tingley and his wife, Shirley, have two young daughters living at home with them in Hurricane. He also has two married daughters and one granddaughter who live in Indiana.

# *Medical Meetings*

Dec. 1-6—Am. Academy of Dermatology, Chicago.

Dec. 2-5—Interim Meeting, AMA House, Honolulu.

Dec. 5-7—Forum for Death Education and Counseling (University of Florida), Gainesville, FL.

Dec. 5-9—Conference on Alcohol & Drug Abuse (Peachford Hospital, Atlanta, & Am. Med. Society on Alcoholism), Atlanta.

**1980**

Jan. 3-5—AMA Health Legislation Meeting, Phoenix, AZ.

Jan. 4-11—Am. Society of Clinical Pathologists, San Diego.

Jan. 12—AMA Conference on Medical Aspects of Sports, San Antonio.

Jan. 12-15—AMA Winter Scientific Meeting, San Antonio.

Jan. 18—Assn. for the Care of Asthma, Miami Beach.

Jan. 19-23—Am. College of Allergists, Miami Beach.

**Jan. 25-27—13th Mid-Winter Clinical Conference, Charleston.**

Jan. 27-Feb. 1—International Gastoenterol. & Family Practice Conference, Orlando, Fla.

Feb. 6-10—Am. College of Psychiatrists, San Antonio.

Feb. 7-12—Am. Academy of Orthopedic Surgeons, Atlanta.

Feb. 16-20—Am. Academy of Allergy, Atlanta.

March 9-13—Am. College of Cardiology, Houston.

March 19-21—Am. Society for Clinical Pharmacology & Therapeutics, San Francisco.

April 2-8—Am. College of Allergists, Washington, D. C.

April 10-11—W. Va. Chapter, Am. Academy of Pediatrics, Charleston.

April 17-18—Rural Health Conference, Boston.

April 17-20—Mo. State Med. Assn., Jefferson City.

April 18-20—Scientific Assembly, W. Va. Chapter, AAFP, Morgantown.

April 20-23—W. Va. Academy of Ophthalmol. & Otolaryngol., White Sulphur Springs.

April 30-May 2—Med. & Chirurgical Faculty of the State of Md., Hunt Valley, Md.

May 5-8—Am. College of Obstetricians & Gynecologists, New Orleans.

May 10-15—Ohio State Med. Assn., Cincinnati.

**Aug. 20-23—113th Annual Meeting, W. Va. State Assn., White Sulphur Springs.**

***A Continuing Medical Education Event!***

# The Twelfth Mid-Winter Clinical Conference

Holiday Inn Charleston House
600 Kanawha Boulevard, East, Charleston, W. Va.

**January 26-28, 1979**

**WEST VIRGINIA STATE MEDICAL ASSOCIATION**
**WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE**
**MARSHALL UNIVERSITY SCHOOL OF MEDICINE**

## WATCH THE JOURNAL FOR PROGRAM DETAILS

**THE PROGRAM CO-CHAIRMEN** again are Ralph H. Nestmann, M. D., and Joseph T. Skaggs, M. D., both of Charleston. Also on the Program Committee are William O. McMillan, Jr., M. D., of Charleston, Maurice A. Mufson, M. D., Huntington; Robert L. Smith, M. D., Morgantown, and C. Carl Tully, M. D., South Charleston.

**THE REGISTRATION FEE** of $25 for the entire conference, including the Saturday night dinner, will be charged all registrants except nurses, medical students, interns and residents. Dinner tickets for the latter registrants, spouses and other guests will be available at the registration desk. Advance registration is requested, and please make checks payable to "WEST VIRGINIA STATE MEDICAL ASSOCIATION."

**ACCREDITATION:** Attendance will be acceptable for 12 hours of Category 1 credit toward the Physician's Recognition Award of the American Medical Association; and the program also is acceptable for 12 Prescribed hours by the American Academy of Family Physicians.

**OVERNIGHT ACCOMMODATIONS:** Physicians should communicate directly with the reservation manager of the hotel or motor inn of their choice, with the conference headquarters hotel setting aside rooms for registrants.

**FOR ADVANCE REGISTRATION,** please complete the form below and mail to: WEST VIRGINIA STATE MEDICAL ASSOCIATION, P. O. BOX 1031, CHARLESTON, W. VA. 25324.

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Please register me for the Twelfth Mid-Winter Clinical Conference in Charleston, W. Va., January 26-28, 1979. My $25 registration fee is (is not) enclosed.

*Name (please print)* _____ *Specialty* _____

*Address* _____ *City* _____

# WVU Medical Center
# —News—

*Compiled from material furnished by Mrs. Mary Ellin Wylie, Director, Medical Center News and Information Services, Morgantown, W. Va.*

## Flinks Return To South Korea For Visit

Twenty-one years ago, under the auspices of the University of Minnesota and the Organization for Economic Cooperation—the forerunner of the United States' Agency for International Development (AID) program, Dr. Edmund B. Flink spent the fall and winter at Seoul National University School of Medicine as a Visiting Professor of Medicine and adviser in medical education.

Recently, the West Virginia University School of Medicine Professor and former Chairman of Medicine and his wife, Marian, returned from a journey that was partially an outgrowth of his first visit to South Korea.

Seoul National University has a new library of medicine and basic sciences education building, and has just completed construction of a 1,000-bed hospital. To mark these accomplishments, the university invited those who had been visiting faculty during the period from 1957 to 1962 to participate in a gala celebration that included a multi-discipline scientific program and dedication of the new hospital.

Doctor Flink, who has been at WVU since 1960, presented several lectures during the program and another to the hospital's staff and house staff.

His aide and interpreter in 1957-58, Dr. Hun Ki Min, who is now that hospital's Chief of Medicine, was a resident in internal medicine at Minnesota when Doctor Flink was chief of the medical service there. And, in 1964-65, he and his wife were fellows in endocrinology and pulmonary diseases at WVU Hospital.

Doctor Flink also participated in conferences and gave lectures at the medical school of Catholic University and at Kyung Hu University. The Chairman of the Department of Medicine at the latter school, Dr. Young K. Choi, is a 1959 graduate of Seoul National University School of Medicine and was among the first group of residents in internal medicine at WVU. Later, he was a fellow in endocrinology and staff member at the University of Cincinnati before returning to Korea.

## WVU Receives $22,289 In Heart Association Grants

WVU has received grants totaling $22,289 from the American Heart Association's West Virginia Affiliate to support research in the Schools of Medicine and Pharmacy.

The research, amount of each award, and the investigators are:

"Hypothalamus, Presynaptic Inhibition and Blood Pressure," $4,000, W. E. Gladfelter, Ph. D.; "Autonomic Nervous Function in Coronary Artery Disease," $3,808, Willard S. Harris, M. D.; "Hemoglobin Stability: Plasma Metal Ion Influence," $5,000, Sam Katz, Ph. D.; "Hydralazine Disposition in the Rat," $4,981, Richard Miller, Ph. D., and "Electrophysiology of Brain Arteries after Simulated Subarachnoid Hemorrhage," $4,500, Pedro R. Urquilla, M. D.

The funds are allocated from contributions made by West Virginians to county units of the Heart Association's West Virginia Affiliate.

## Elected To Society

Dr. Barbara Jones, Professor and Assistant Chairwoman in the Department of Pediatrics, has been elected to membership in the International Society of Paediatric Oncology. Along with Dr. Ellen E. Hrabovsky, Assistant Professor of Surgery and Pediatrics, she participated in the Society's 10th meeting, held recently in Brussels, Belgium.

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- ☐ LOW-COST LIFE INSURANCE
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# Third-Party News, Views and Program Concerns

## Report To Come After Review Of State TB Program

The West Virginia Lung Association and the State Health Department will work together to implement any recommendations made by expert review teams to improve the care of tuberculosis patients in the state.

A task force of three review teams conducted an intensive review of the state's tuberculosis control program and activities on November 13 and 14, and will prepare a report on its findings.

Sponsored by the Lung Association, in conjunction with the West Virginia Department of Health, the task force visited officials of private and public institutions, health clinics, laboratories and educational facilities around the state.

In addition to reviewing the field services, the task force reviewed central registration, management, fiscal details and laboratory services in Charleston.

Dr. James H. Walker, Director of the Tuberculosis Control Division of the State Health Department, said that in recent years there has been a progressive movement in tuberculosis control and treatment methods. "Through the guidelines and recommendation of this review team, we can update our programs and improve services," he observed, adding, "There has been a trend toward integrating tuberculosis into mainstream medical care, and increasing numbers of general hospitals are accepting patients for treatment of tuberculosis."

Based on today's concepts of treatment and transmission, and the simple, inexpensive techniques now available for breaking the chain of infection, the State Health Department commented, tuberculosis can be managed in a general hospital setting easily and safely. This concept is now being applied in a few general hospitals in West Virginia, the Department said.

According to State Health Department officials, all sanatoria around the state have been closed for tuberculosis treatment, with the exception of Pinecrest Hospital, which usually has a tuberculosis patient population of 45 to 75.

Doctor Walker said extensive x-ray examinations have also been done away with because of the infrequency of positive cases found, x-ray overexposure and high costs.

Members of the task force teams were:

Southern Team — Whitney W. Addington, M. D., Cook County Hospital, Chicago, and Marilyn Hansen, R. N., M. P. H., Associate Director, American Thoracic Society, New York City; Northern Team — Robert F. Johnston, M. D., Division of Pulmonary Diseases, Hahnemann Medical College and Hospital, Philadelphia, and Michael D. Iseman, M. D., Denver (Colorado) General Hospital, and Charleston-based Team—Robert J. Reza, M. D., Bayport, New York, and John Seggerson, Chief of Program Services-TB Division, Center for Disease Control, Atlanta.

## Risk Of Diabetes Drug Verified Following Audit By FDA

The Food and Drug Administration recently made public the results of its audit of a major study that linked the diabetes drug tolbutamide to an increased risk of deaths from heart attacks and strokes.

The audit did not identify any errors or discrepancies that would invalidate the basic finding of the study.

On the basis of the study, the FDA had proposed, in July, 1975, to change the physician labeling for all oral drugs used in the treatment of diabetes, including the one studied, tolbutamide. The proposed new labeling recommended that oral diabetes drugs be prescribed only after dietary restrictions, or dietary restrictions plus insulin, prove to be unsuccessful treatments. Present labeling does not recommend any priorities for treatment of diabetes.

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R. V. Pangilinan, M. D.

**Ear, Nose & Throat:**
W. A. Tiu, M. D.
A. G. Matadar, M. D.

**Orthopedic Surgery:**
E. L. Barrett, M. D.
R. S. Glass, M. D.

**Thoracic Surgery:**
Daniel W. Dickinson, M. D.

**Obstetrics and Gynecology:**
Robert W. Leibold, M. D.
Robert T. Brandfass, M. D.
A. Athari, M. D.
J. W. Campbell, M. D.

**Urology:**
D. C. Trapp, M. D.
J. B. Franz, M. D.

**Dermatology:**
K. W. Watersan, M. D.

**Internal Medicine:**
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C. A. Vasquez, M. D.
T. E. Chvasta, M. D.
B. L. VanPelt, M. D.
C. L. Beall, M. D.
P. R. Hedges, M. D.
T. G. Kenamond, M. D.
D. L. Latas, M. D.
R. B. Altmeyer, M. D.
W. E. Noble, M. D.

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David Hill, M. D.
David H. Smith, M. D.

**Neurology:**
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Donna Burlenski
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**Technologists:**
Electrocardiography:
Betty Maguire, R. N.
Brenda Muklewicz, R. N.
Electroencephalography:
Juanita Stone, R. N.
Roentgenology:
Evelyn Farester, R. T.

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# Obituaries

## CHARLES S. HARRISON, M. D.

Dr. Charles S. Harrison, Clarksburg obstetrician and gynecologist, died on December 4 in a hospital there. He was 64.

Doctor Harrison was a former Chief of the Department of Obstetrics and Gynecology at United Hospital Center in Clarksburg, and had held the offices of President, Vice President and Secretary of the medical staff at the former St. Mary's Hospital there.

A Fellow of the American College of Obstetrics and Gynecology, and the American College of Surgeons, Doctor Harrison was President of the Harrison County Medical Society in 1975-76.

Doctor Harrison, a native of Clarksburg, was graduated from West Virginia University and received his M. D. degree in 1939 from the University of Maryland. He interned at Ohio Valley General Hospital in Wheeling and served his residency at Woman's Hospital in New York City.

A veteran of World War II, he was a member of the Harrison County Medical Society, the West Virginia State Medical Association, the West Virginia Obstetrical and Gynecological Society, and the American Medical Association.

Survivors include the widow; one son, Charles R. Harrison of North Ridgeville, Ohio; one brother, William Harrison of Spencer, and two sisters, Mrs. Sue Ross of Clarksburg and Mrs. O. J. Stout of Harve de Grace, Maryland.

**Radiology:**
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**Pathology:**
Fulvio Franyutti, M. D.

**Surgery:**
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A. Kyle Bush, M. D.
J. W. Woodford, M. D.
David C. Snyder, M. D.

**Gynecology and Obstetrics:**
Raymond W. Cronlund, M. D.

**Internal Medicine:**
E. G. Guy, M. D.
B. G. Thimmappa, M. D.
Karl J. Myers, Jr., M. D.

**Pediatrics:**
E. G. Kreider, M. D.
J. M. Nissley, M. D.

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**WARNINGS:** If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.
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**ADVERSE REACTIONS:** *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.
**DOSAGE AND ADMINISTRATION:** Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.
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References: 1. Citations available on request—Medical Research Department, MERRELL RESEARCH CENTER, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon, R.H., and Leyland, H.M. A Comprehensive Review of Diethylpropion Hydrochloride. International Symposium on Central Mechanisms of Anorectic Drugs, Florence, Italy, Jan. 20-21, 1977.

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# County Societies

## CABELL

The Cabell County Medical Society met on November 9 at the Gateway Inn in Barboursville.

The speaker, Dr. James A. Coil, Jr., gave a very enlightening and informative discussion on what is new and developing in burn therapy, and made recommendations for that community. Doctor Coil is Associate Professor of Surgery at Marshall University School of Medicine.

New officers were nominated and elected.

The Society passed a motion giving approval to a feasibility study for development of a health maintenance organization (HMO) in the Cabell County area, the request for the Society's approval having come from the Valley Health Foundation, Inc.

Dr. Florence J. Hoback, a member of the Society's Liaison Committee on Drug Abuse, gave a report on problems of drug abuse in Huntington, and suggested several ways of decreasing the drug abuse.—William J. Echols, M. D., President.

* * *

## CENTRAL WEST VIRGINIA

The Central West Virginia Medical Society met on September 21 in Buckhannon at the Bicentennial Motel.

Guests included Dr. Robert D. Hess of Clarksburg, President of the State Medical Association, and Mrs. Hess; Mrs. Robert J. Reed III of Wheeling, President of the Auxiliary to the State Medical Association, and Doctor Reed; Mr. Tom Auman of Charleston, Account Supervisor, Aetna Life and Casualty Company, the State Medical Association's carrier for malpractice insurance; Mr. John Baker, student at West Virginia University School of Medicine, and Dr. Emil Mantini, cardiovascular surgeon from Clarksburg.

Both Doctor Hess and Mr. Auman addressed the group and answered questions.

Apparent dissatisfaction by both doctors and lawyers with the state's mental health commitment law, and how it can be improved, was discussed at length. Dr. Greenbrier Almond is to address a letter to the State Medical Association and the state law group about the matter.

Also discussed were continuing efforts to obtain fluoridation of the water supplies in Gassaway, Sutton and Weston.

Doctor Hess talked about the second opinion issue, stating that the position of the State Medical Association is that physicians have always recommended consultations where they felt indicated.—Joseph B. Reed, M. D., Secretary.

* * *

## MONONGALIA

The Monongalia County Medical Society met on November 7 at the Old Mill Club in Morgantown.

Dr. Charles F. Scholhamer of Hartford, Connecticut, Associate Medical Director, Claims Department, Aetna Life and Casualty, spoke on "Malpractice—Past, Present and Future." His presentation was followed by a lively discussion. Aetna is the State Medical Association's carrier for malpractice insurance. — Barbara Jones, M. D., Secretary.

* * *

## McDOWELL

The McDowell County Medical Society met on November 8 in Welch at Stevens Clinic Hospital.

Mr. John Whittmore of Merck Sharp & Dohme presented a film on echocardiography, dealing with the anatomical basis of echocardiogram and its physiological principles.—Muthusami Kuppusami, M. D., Secretary.

* * *

## TYGART'S VALLEY

The Tygart's Valley Medical Society met on November 16 at the Elks Country Club in Elkins.

Dr. Robert D. Hess of Clarksburg, President of the West Virginia State Medical Association, discussed the program of the Association, and advised Society members to work with our representatives during the State Legislature.

Other speakers were Kirk Ankron, Public Works Director of Elkins, and William A. vanEck, Ph. D., Professor of Soils, West Virginia University, Morgantown.

Mr. Ankron spoke on "Sewage Treatment of the Farm and Garden," stating that activated sludge and digested sludge were safe to use. He said the recent trend has been to the use of thermal conditioning of sludge so that it kills bacteria.

Doctor vanEck, speaking on "Soil and Health," showed maps and types of soil in West Virginia and the use of the water leaching materials from the soil. He stated that fertilizers only contain nitrogen, potassium and phosphorus, and that the trace metals were absent. Most of the trace elements are lacking in the soil of West Virginia and should be added, he said.

The Society approved a motion to establish a Chair of Nutrition in each of the medical schools in the state. A letter in regard to this was to be

addressed to the Council of the State Medical Association.

A letter was read from the State Auxiliary President Elect, Mrs. D. Sheffer Clark of Huntington, and it was passed among members to see if an Auxiliary could be reorganized in the Tygart's Valley Medical Society.—A. Kyle Bush, M. D., Secretary.

## AMA-ERF Gave Medical Schools Almost $1.2 Million in 1977

Approximately $1,180,000 in unrestricted grants were distributed through state medical associations to medical schools in 1977 by the American Medical Association Education and Research Foundation. For the past 28 years, unrestricted gifts to medical schools have averaged more than $1 million per year. All this money has been donated to AMA-ERF by physicians; their families; and medical society auxiliaries, which have many varied fund-raising activities at the county, state, and national levels.


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# Book Review

**COAL WORKERS' PNEUMOCONIOSIS — A CRITICAL REVIEW**—Aleksandra J. Kujawska, M. D.; Kazimierz J. Marek, M. D.; and Witold W. Zahorski, M. D. University Press of New England, Hanover, New Hampshire. 108 Pages. 1974.

Coal workers' pneumoconiosis is the most common form of dust disease which affects the lungs (particularly in West Virginia). Dust disease of the lung in miners was first mentioned in the treatise *De re metallica* by Georgius Agricola in 1556 and then, in 1700, Ramazzini mentioned a special type of asthma and disease of the bronchi in miners. In spite of the early recognition of coal workers' pneumoconiosis, comparatively little is known about it. The energy crisis of the 1970's, by increasing interest in coal as a source of power and fuel, and the political controversy surrounding "Black Lung" legislation, have focused more attention on the problem of coal workers' pneumoconiosis. Presently, the United States, U. S. S. R., Great Britain, Poland and West Germany have active research programs in pneumoconiosis.

Dr. W. W. Zahorski, Head of the Department of Occupational Diseases at the Silesian Medical School in Poland and the other authors of this book have reviewed most of the literature on coal workers' pneumoconiosis and have prepared a comprehensive review of the subject with particular emphasis on the differences between coal workers' pneumoconiosis and silicosis.

Doctor Zahorski gives an interesting history of mining in Europe and the United States from 852 A. D. to the present, including surface mining, deep mining and mechanization of mining with concomitant increase in dust exposure. Also included are early descriptions of miners' asthma (coal workers' pneumoconiosis), miners' phthisis (tuberculosis) and Zenker's first use of "pneumoconiosis" for all dust diseases of the lung. Gough and Wentworth's autopsy study in 1949 showed that coal workers' pneumoconiosis and silicosis were similar diseases, but different in the amount of fibrosis and focal emphysema produced. The chapter of pathogenesis has a brief and superficial review of the physics of aerosols and dust deposition and an extensive review of the pathological and epidemiological differences between coal workers' pneumoconiosis and silicosis.

The review of pathology in coal workers' pneumoconiosis is excellent, with examples of the focal emphysema and many Gough sections of lungs of patients with both coal workers' pneumoconiosis and silicosis. The authors avoid the controversy (probably wisely so) regarding the role of coal dust in generalized emphysema. The discussion of Caplan's syndrome (rheumatoid pneumoconiosis) is well done.

The chapter on respiratory impairment in coal workers' pneumoconiosis contains a copious review of the literature from which it is difficult to draw any conclusions. The author comments that emphysema and bronchitis often accompany and complicate the evaluation of a miner with pneumoconiosis, as does age, smoking, length of time underground and the job within the mine. He concludes that complicated pneumoconiosis (PMF) causes distinct functional impairment, but while simple pneumoconiosis exerts a detrimental effect on some functional parameters, it does not cause significant impairment of respiratory function in the absences of complicating chronic bronchitis or emphysema.

The author also presents interesting comparisons of the prevalence of coal workers' pneumoconiosis in various countries in relation to rank and type of coal, dust levels, silica content, duration of exposure and jobs within the mines. His description of the x-ray classification of the pneumoconioses is difficult to follow without x-ray examples. In summary, Doctor Zahorski gives a very good overview of coal workers' pneumoconiosis which should be interesting and useful to any physician living and working in Appalachia. The discussion of the history of mining and pathology of coal workers' pneumoconiosis is particularly well done, while the sections on lung function and epidemiology are a bit more obscure.—Edwin J. Morgan, M. D.

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**REVIEW OF MEDICAL PHARMACOLOGY, 6TH EDITION**—Frederick H. Meyers, M. D.; Ernest Jawetz, M. D., Ph. D.; and Alan Goldfien, M. D. Lange Medical Publications, Los Altos, California 94022. 762 Pages. 1978. Price $14.50.

With their Sixth Edition of the *Review of Medical Pharmacology* authors Meyers, Jawetz and Goldfien have created a valuable reference text for medical and pharmacy students. The book is also an inexpensive addition to the library of any physician wishing a quick, concise reference on the subject of Pharmacology.

The text, which is aimed primarily at medical students, attempts as its main objective to foster a skeptical attitude toward all new drug claims and to suggest to the practicing physician that he should re-examine his prescribing habits from time to time and periodically re-evaluate drugs he may have been using for years. The book clearly and concisely brings together under one cover a large amount of information vital to the everyday practice of the physician while maintaining its priority as a teaching tool.

The book is divided into eight general sections, focusing mainly on type of drug or body system acted upon and subdivided into types of drugs in each classification. There also is a section on toxicology, general information dealing with pharmacokinetics and drug interactions, the clinical evaluation of drugs, techniques of drug administration, dermatological application, toxicity, and drug abuse. This information can be of particular value to a student.

There also is an appendix section (authored by Philip Hanston, an authority in the field) with tables relating to the effects of drugs on common clinical procedures, and a section highlighting drugs which are hazardous during pregnancy.

Spaced throughout the book and on the covers are several items such as surface area nomograms, schedules of controlled drugs, and apothocary equivalents which are helpful in everyday practice and of great value to the student.

Each chapter deals with the drug on the standard format, that is, explaining terminology, relating some history, the chemistry of the drug, the pharmacological effects, mechanisms of action, pharmacokinetics, uses, adverse reactions, and contraindications.

Spaced throughout are chemical configurations, charts relating to the chemistry, and some very good line drawings (of particular value in this text as compared to many other pharmacology texts) which are graphical representations of the actual action within the body system. The drawings are quite helpful in understanding the information being presented.

The only limitation of the book is that it, as many other pharmacology texts, tends to try to be too complete in its treatment of a drug—such as trying to list all the preparations available, all the dosage forms, and the dosage. Aside from this limitation, the book is quite complete and easy to follow. Although intended primarily for the student, this text is much more geared to the practicing physician and pharmacist than are most pharmacology texts available now.

In summary, the book is useful to anyone in the medical profession, but particularly to students and practicing physicians without ready access to pharmacological information. It provides a quick, ready, inexpensive addition to the reference library. — Jim Wells, R. Ph., and Stephen Mamick, M. D.

## Physicians Assess Impact Of Climate On Health

With another season of winter cold at hand, millions of Americans are dreaming about going south for the winter—"for their health."

Physicians long have been puzzled by the question of what effect climate actually has on health.

Colds and flu are more prevalent in the winter. But these are caused by virus infections, not weather. Do we get more colds in the winter because we are crowded indoors where the germs are spread readily? Or because chilling lowers the body's natural resistance to the germs?

There is one specific health hazard of winter —carbon monoxide poisoning. Air tight insulation and weather-stripping of your house saves on the fuel bills. But, with no fresh air getting into the house, you and your family could suffer carbon monoxide poisoning from a faulty heating system.

There also is danger of monoxide poisoning in a closed auto with the motor running. There could be a leak of exhaust gas into the body of the car.

The Journal of the American Medical Association reported last year on 12 cases of carbon monoxide poisoning in Baltimore during two successive heating seasons. All were caused by defective heating systems. Three of the 12 died.

Overly-chilly rooms may be fatal to elderly persons who sometimes cannot tolerate even moderate cold, a Journal editorial last year pointed out. Older persons do not adapt to temperature changes as well as younger adults.

After two unusually severe winters, reports of frostbites were received even from the sunbelt. A New Mexico physician reported treating 109 patients who were frostbitten in the Albuquerque area. Many were alcoholics or drug abusers who fell asleep in the out of doors.

The human body functions best at a room temperature of about 66 degrees. Diabetes appears to be more controllable in the tropics. Stress diseases—ulcers, certain heart problems, hardening of the arteries—are less frequent in warm zones.

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# WVU Medical Center
# –News–

*Compiled from material furnished by Mrs. Mary Ellin Wylie, Director, Medical Center News and Information Services, Morgantown, W. Va.*

## Expansion Of Cardiac Care Unit Envisioned

West Virginia University Hospital hopes to expand its cardiac care unit so its facilities and equipment are equal to the care the medical and nursing experts can provide.

Since the early 1960s, remarkable progress has been made in the diagnosis and treatment of heart diseases, and this progress has challenged the Medical Center to expand the unit, according to Abnash C. Jain, M. D., Professor of Medicine and Cardiac Care Unit Director.

The West Virginia University Foundation, Inc. and the hospital administration have listed the unit's expansion as one beneficiary of the largest private fund-raising campaign in WVU history.

"We need more room and equipment for monitoring cardiac patients," Doctor Jain said. "In place of the present four-bed unit, we need a 10-bed unit consisting of six active beds and four so-called step-down beds where nursing care needs are minimal and electrocardiograms are monitored by telemetry."

He explained that University Hospital's cardiac care unit has 80 to 90 per cent occupancy at all times.

"We have 550 admissions each year—not only heart attack patients, but those with rhythm disturbances. All are medical patients who need close supervision.

"Our facilities are limited also," he said "for the monitoring of inside heart (intracardiac) pressures which is done with very sick patients and forms the basis for critical decisions about treatment."

Another concern is that earlier than desired discharges from the unit are sometimes necessary because of the limited facilities and increasing volume of patients.

The hospital opened its first cardiac care unit, containing two beds, in March, 1968. Expansion to the present four-bed unit came in July, 1969.

The needed unit will cost about $1 million. Its design consists of single rooms with bedside monitoring, as well as a central monitoring system and the director's office. The facilities also would provide the means for bedside placement of pacemakers in patients and use of movable image intensifiers.

A letter of intent outlining the university's plans for replacing the cardiac care unit has been sent to the State Health Department's certificate of need office and to the West Virginia Health Systems Agency. A certificate of need is required before the project can proceed.

## Doctors Watne, White Honored By Specialty Groups

Two WVU School of Medicine department chairmen recently were honored by specialty groups.

Dr. Alvin L. Watne, Chairman of the Department of Surgery, has been inducted into the Southern Surgical Association, while Dr. Charles A. White, Professor and Chairman of Obstetrics and Gynecology, was elected a Fellow of the American Association of Obstetricians and Gynecologists.

Doctor Watne, who is also Charleston Foundation Professor of Cancer Research, is the first West Virginian to become a member of the surgical group. He has served as President of the West Virginia Division of the American Cancer Society and the West Virginia Chapter, American College of Surgeons.

Doctor White is the only West Virginia member of the obstetrical-gynecological organization, which includes 195 Fellows in the United States and Canada and 20 foreign countries.

A graduate of the University of Utah School of Medicine, Doctor White joined the WVU faculty in 1974.

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# Third-Party News, Views and Program Concerns

## Uncertain Future For Health Planning In Congress

The future of legislation in the 96th Congress to renew the health planning authorities of Public Law 93-641 is subject to speculation. With President Carter's labeling of inflation as "Public Enemy No. 1," much of Congress' attention might be directed toward cooling the national economy and cutbacks in government spending at the possible expense of federal health programs.

Senator Edward M. Kennedy, (D-Massachusetts) has been expected to reintroduce the amendments to P. L. 93-641, which were approved by the Senate during the 95th Congress. Few changes were expected from the previous Kennedy-sponsored bill, which would have extended certificate of need (CON) to physicians' offices. Introduction of the Kennedy bill was expected in late January, with Senate hearings following in early February.

On the House side, consideration of health planning amendments could be delayed because the Subcommittee on Health and the Environment of the House Interstate and Foreign Commerce Committee had to elect a Chairman to replace Representative Paul Rogers (D-Florida), and sort out its lengthy legislative agenda.

### HEW Lobbying

In the meantime, Department of Health Education and Welfare lobbying for the health planning program has already begun. The Administrator of HEW's Health Resources Administration informed the National Council on Health Planning and Development that Health Systems Agencies (HSAs) and State Health Planning and Development Agencies (SHPDAs) would be asked to meet with state and local elected officials, and with Congressmen in their home districts, to encourage support for the Administration/HEW health planning amendments. Those amendments were expected to be available by the end of January.

In outlining Administration plans for renewal legislation, planning officials termed the period of January to April, 1979, "critical" for the program. The Bureau of Health Planning has been developing the Administration's proposals, which are expected to include strong certificate of need provisions, a program of decertification, and possibly an increased role for state government in the planning process. There also has been speculation that HEW Secretary Califano might attempt to include a cap on hospital capital expenditures in the planning bill. The inclusion of such ceilings could touch off enough debate to delay passage of new planning legislation.

## HCFA Regulations Encourage Dialysis In Home

Regulations that will encourage patients with kidney disease to seek home dialysis services rather than costly hospital dialysis treatment have been issued by the Health Care Financing Administration (HCFA). The regulation will also encourage patients to seek a transplant, when medically feasible, by authorizing reimbursement of more of the costs.

Regulations on reimbursement procedures and the operations of a national network of End-Stage Renal Disease (ESRD) review organizations also were to be issued. All of the regulations implement the amendments (Public Law 95-292) enacted June 13, 1978, to improve and strengthen the ESRD program.

HCFA Administrator Leonard D. Shaeffer said that the regulations will help patients with permanent kidney failure and will also help to hold down the spiraling cost of health care.

"The amendments encourage transplants, when medically feasible, and also the use of lower-cost, self-dialysis at home or at self-care stations instead of the more expensive dialysis treatment provided by hospitals and other outpatient facilities," Schaeffer said. "Changes provided by the ESRD amendments will help us combat the costs which have been rising since the program's inception in 1973 . . . "

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C. D. Hershey, M. D.
E. C. Voss, M. D.

**Ophthalmology:**
W. F. Park, M. D.
M. E. Nugent, M. D.
R. V. Pangilinan, M. D.

**Ear, Nose & Throat:**
W. A. Tiu, M. D.
A. G. Matadar, M. D.

**Orthopedic Surgery:**
E. L. Barrett, M. D.
R. S. Glass, M. D.

**Thoracic Surgery:**
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**Urology:**
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J. B. Franz, M. D.

**Dermatology:**
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**Internal Medicine:**
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C. A. Vasquez, M. D.
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B. L. VanPelt, M. D.
C. L. Beall, M. D.
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W. E. Noble, M. D.

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David Hill, M. D.
David H. Smith, M. D.

**Neurology:**
A. L. Wanner, M. D.
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Betty Maguire, R. N.
Brenda Muklewicz, R. N.
Electroencephalography:
Juanita Stone, R. N.
Roentgenology:
Evelyn Forester, R. T.

**Administration:**
L. L. Cline, Executive Director
D. G. Anderson, Business Manager
H. L. Castilow, Asst. Business Manager

# Obituaries

### CLYDE A. SMITH

Dr. Clyde A. (Pinkey) Smith, Beckley family physician, died there on December 7. He was 70.

Doctor Smith, who practiced medicine in Raleigh County for 40 years, was a charter member of both the Beckley Medical Arts, Inc., and the West Virginia Chapter, American Academy of Family Physicians.

A Past President of the Raleigh County Medical Society, he served two terms on the Council of the West Virginia State Medical Association.

In 1974, Doctor Smith was honored by the Woman's Club of Beckley for his long-time work with the Club's Well-Baby Clinic.

A native of Stonega, Virginia, he lived in Rainelle during most of his boyhood. He was graduated from West Virginia University, where he served as President of the student body, and received his M. D. degree in 1934 from the Medical College of Virginia. He interned at the latter institution's hospitals.

Following his internship, Doctor Smith returned to the coal fields, later becoming staff physician at Raleigh General Hospital in Beckley. He also was instructor at the hospital's Nursing School in the 1930s, and had been a part-time Director of the Raleigh County Health Department.

He served with the U. S. Navy for five years during World War II.

In addition to the family physicians group, he was a member of the Raleigh County Medical Society, the West Virginia State Medical Association, and the American Medical Association.

Survivors include the widow; a son, Clyde A. Smith of Beckley; a daughter, Caroline M. Smith of Farmington, Connecticut; a sister, Mrs. Helen Briant of Leesburg, Florida, and a brother, Clifford W. Smith, also of Leesburg.

* * *

### THOMAS C. SIMS, M. D.

Dr. Thomas C. Sims of Montgomery died on January 3 in a hospital there. He was 65.

Doctor Sims, a former Fayette County Health Officer, was Chief of Staff at the Coal Valley Medical Center in Smithers.

A native of Lansing (Fayette County), he was graduated from West Virginia University and received his M. D. degree in 1941 from the University of Maryland. He interned at the former Charleston General Hospital.

Doctor Sims, a veteran of World War II, was a member of the Fayette County Medical Society and the West Virginia State Medical Association.

Survivors include the widow; two sons, John Sims of Christianburg, Kentucky, and Thomas Sims, Jr., of Charleston; two sisters, Mrs. Ernestine Mallory of Charleston and Miss Madeline Sims of Fayetteville, and a brother, Herchiel Sims of Charleston.

---

### Answers To Review Article Questions

(Questions on Page 31)

1. FALSE. It stabilizes mast cell membranes.
2. FALSE. Asthma is a multifactorial disease with allergic infections, psychological and atmospheric components.
3. TRUE.
4. TRUE.
5. FALSE. It is neither beta-2 specific nor long-acting and has been replaced by more effective drugs (see text).
6. TRUE.
7. TRUE.
8. FALSE. Peak expiratory flow is a more objective, reproducible office test.
9. FALSE. Cromolyn sodium is the drug of choice.
10. RIGHT ON!

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# County Societies

## FAYETTE

The Fayette County Medical Society met on December 13 at Oak Hill Hospital.

Guests included Dr. L. Walter Fix of Martinsburg, Vice President of the West Virginia State Medical Association; Dr. Joseph A. Smith of Dunbar, Chairman of the State Medical Association's Council; Charles R. Lewis of Charleston, Executive Secretary of the Association, and Harry Kline, Administrator of Oak Hill Hospital.

The Society voted against approval of a request by the New River Health Association for a National Health Service Corps physician.

New officers of the Society were nominated and elected.

Mr. Lewis then discussed the activities of the State Medical Association office, giving some insight as to how the office operates and its relation to the component societies of the Association. He emphasized the importance of grassroots input by local members to their elected representatives in the State Legislature.

The Executive Secretary also discussed the latest developments in medical cost containment, concerns and activities at state and federal levels, and the role of the Association's Legislative Committee.—Joe N. Jarrett, M. D., Secretary.

* * *

## MONONGALIA

The Monongalia County Medical Society met on December 5 at the Old Mill Club in Morgantown.

The guest speaker was Mr. Ward Stone, Jr., Executive Director of the Morgantown Medical-Surgical Service, Inc. and the Morgantown Hospital Service, Inc.

New officers of the Society were nominated and elected.—Barbara Jones, M. D., Secretary.

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# Book Review

**TALK BACK TO YOUR DOCTOR**—Arthur Levin, M. D., Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10017. 245 Pages. 1975. Price $7.95.

This book was written to help patients answer such questions as: how do I go about finding the best doctor, the most competent surgeon, the safest hospital; also, how do I judge the caliber of the care I received? These are reasonable questions, and a good book on the general subject could be valuable.

This book is good and bad. It clearly speaks to a middle-class audience, comfortable with calling hospitals and doctors' offices to ask for information, and equipped to use public libraries or medical libraries to find information. For such an audience, the book may well be practical since it does identify useful sources, such as the Hospital Guide Issue and the Directory of Medical Specialists, and also pertinent drug information sources, including Goodman and Gilman.

In addition, the book describes some of the common procedures — what they are and what they entail, with asterisks for such items as bronchogram and pneumoencephalogram to indicate high-risk procedures.

Where the book is more controversial is in listing the items that should be included in a normal history, physical examination, and at prenatal and well child visits. Not all the screening procedures would be recommended by all, and one or two items listed, such as smallpox vaccination, would be contraindicated. There is a hazard in including dogmatically controversial items in lists patients will monitor to see that they receive good care.

It is certainly not a bad book, though somewhat flat to read. Indeed, it is almost a good book that could be recommended to the more discerning and better prepared members of the general population.—R. John C. Pearson, M. B.

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*The Greenbrier*

AUGUST 22-25, 1979

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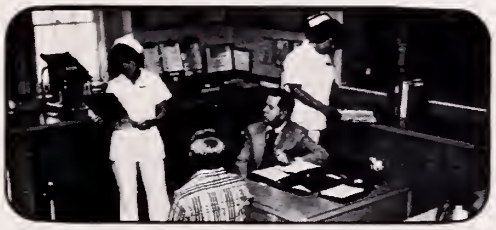

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# WVU Medical Center
# —News—

*Compiled from material furnished by Mrs. Mary Ellin Wylie, Director, Medical Center News and Information Services, Morgantown, W. Va.*

## Dr. James M. Stevenson Named Psychiatry Chairman

James M. Stevenson, M. D., a 1970 graduate of the West Virginia University School of Medicine, has been named Chairman of that school's Department of Behavioral Medicine and Psychiatry.

Doctor Stevenson has been Acting Chairman since last July. He joined the faculty in 1974, when he was named Assistant Chairman in the Department and Director of Behavioral Medicine and Psychiatry at the Charleston Division.

In announcing the appointment, Dean John E. Jones, M. D., of the School of Medicine said, "Doctor Stevenson is an outstanding, nationally-recognized psychiatrist with proven professional, teaching and investigative talents. He has headed our Charleston Division Behavioral Medicine and Psychiatry program in a most effective manner. I am most pleased that the search committee selected him as a leading candidate for the position."

Doctor Stevenson was born in Charleston, attended high school in Ravenswood, and received his bachelor's degree in biology and chemistry from Marshall University.

He completed his postgraduate training at WVU in 1974. During the last two years of his residency, he was a Maurice Falk Fellow of the American Psychiatric Association and organized and conducted a pilot curriculum in behavior for the WVU School of Dentistry.

His current research includes a comparison of the effects of the antidepressant drugs desipramine and amitryptline and a study of a defined population of depressed patients.

He is supervising three major grants. One is for the development of a state training center for mental health-retardation workers in the Charleston Division in conjunction with the State Health Department. Another is for the development of a Region III Community Health-Mental Retardation Center. The third is to develop a teaching specialist and curriculum on alcohol for the School of Medicine.

Author or co-author of a number of publications as well as papers presented at professional meetings, he has written on a wide range of subjects including educational goals in training of psychiatrists, adolescent behavior and personality, the runaway child syndrome, family interactions, alcohol and drug abuse, and patients' rights.

A Diplomate of the American Board of Psychiatry and Neurology, he is a member of the American Psychiatric Association.

## Cancer Society Grants Total $68,128

WVU Medical Center recently has received grants totalling $68,128 from the American Cancer Society to support research. The research, amount of each award, and the investigators are:

To study the pathology and biology of Complement, a substance involved in the body's immune reactions, $25,072, Dr. George H. Wirtz, Professor of Biochemistry, and "Cytoplasmic Phosphoproteins and the Regulation of Cell Growth," $43,056, Dr. Rolf F. Kletzien, Department of Biochemistry.

The funds are allocated from contributions made by West Virginians to the Cancer Society.

## To Present Paper

Dr. James P. Boland, Professor and Chairman of the Department of Surgery, and Dr. Romeo Y. Lim, Clinical Associate Professor of Otolaryngology, both of the Charleston Division, will present a paper at the Third International Symposium on Plastic and Reconstructive Surgery of The Head and Neck on April 29 at New Orleans. The title of the paper will be "The Use of the Right Colon for Reconstruction of the Cervical Esophagus."

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# Third-Party News, Views and Program Concerns

## Limits Set For Medicaid Lab Test Reimbursement

The United States Department of Health, Education and Welfare (HEW) recently announced it will limit Medicaid reimbursement for several laboratory tests to their lowest locally-available prices.

This step represents the second stage of anti-inflation initiative begun by HEW Secretary Joseph A. Califano, Jr., last year. In July, Secretary Califano published new regulations limiting Medicare and Medicaid payments for laboratory tests and for medical equipment to the lowest price that is widely available for the same quality in a particular community. Initially, HEW applied this limit to the 12 laboratory tests most widely used by Medicare and Medicaid patients and to the most commonly purchased pieces of medical equipment—hospital beds and wheelchairs.

The proposal published in the *Federal Register* (January 24) for public comment would add seven additional laboratory tests to the list of tests for which Medicaid will limit payments to the lowest price at which they are locally available. These seven tests are frequently paid for by Medicaid but not by Medicare.

### Seven Tests

The tests are: (1) sickling of red blood cells; (2) hemoglobin, electrophoresis; (3) microscopic examination, stain for bacteria, (including smear for gonococcus), fungi, ova and parasites, any source; (4) heterophil antibodies, screening; (5) lead, blood, quantitative; (6) iron, serum, automated; and (7) pregnancy test.

"The list we are proposing . . . extends our earlier anti-inflation payment limits to items and services that are provided only under Medicaid," said Health Care Financing Administration (HCFA) Administrator Leonard D. Schaeffer. "We feel that substantial savings can be achieved by stimulating competition among suppliers in the medical field.

"Before our lowest charge level regulations came out in July, Medicare and Medicaid were paying the customary price charged by a particular laboratory or supplier of medical equipment or the going rate charged in the community. Now, such payments for items and services will be limited to the lowest prices at which they are widely and consistently available in a locality."

Periodically, HCFA will review other items and services and may propose that Medicare and Medicaid payment for them also be limited.

The HCFA will consider written comments received from the public until March 24. Comments should refer to file code MMB-249-R and be addressed to: Administrator, Health Care Financing Administration, DHEW, P. O. Box 2366, Washington, D. C. 20013.

## Carter Not Committed To NHI Proposal By HEW

A national health insurance proposal recently was submitted to the White House by the United States Department of Health, Education and Welfare, but President Carter has been expected to take his time in deciding on what form the Administration's national health insurance plan will take, according to the American Medical Association. Carter, it was believed, wanted to test the sentiment on Capitol Hill before submitting his plan. The White House has not been committed to the HEW approach and may make major changes in it.

The HEW proposal would establish a new federal insurance program called HealthCare that would operate alongside the existing private insurance plans, which would be required to meet new federal standards. The plan was understood to provide various reimbursement options, including prospective payment for hospitals and fee schedules for physicians.

Financing would be through a combination of premiums and federal general revenues. The national health plan would be phased in over a period of five years, with a catastrophic benefit the first phase. A key issue has been whether the Administration will seek to have Congress approve the entire plan in one package or propose that Congress act on each phase.

## OFFICERS OF COMPONENT SOCIETIES

| Society | President | | Secretary | | Meetings |
|---|---|---|---|---|---|
| Boone | George H. Cook | Whitesville | Harold H. Howell | Madison | 3rd Wed. |
| Brooke | Rogelio L. Velarde | Follansbee | | | |
| Cabell | Colin M. Craythorne | Huntington | Charles E. Turner | Huntington | 2nd Thurs. |
| Central West Virginia | John A. Mathias | Buckhannon | Joseph B. Reed | Buckhannon | As Sched. |
| Eastern Panhandle | William R. McCune | Martinsburg | Harvey D. Reisenweber | Martinsburg | 2nd Wed. |
| Fayette | Joe N. Jarrett | Oak Hill | Lewis A. Cook | Fayetteville | 1st Wed. |
| Greenbrier Valley | Houston B. Moore | Lewisburg | E. A. Ricketts, Jr. | White Sulphur Springs | 2nd Wed. |
| Hancock | Carlos L. Vasques | Weirton | Reynaldo B. Vista | Weirton | 3rd Tues. |
| Harrison | Reverdy H. Jones, Jr. | Fairmont | Cordell A. de la Pena | Clarksburg | 1st Thurs. |
| Jefferson | Earl Douglas Allara | Charles Town | S. K. G. Menon | Ranson | 1st Wed. |
| Kanawha | Carl J. Roncaglione | South Charleston | Echols A. Hansbarger, Jr. | Charleston | 2nd Tues. |
| Logan | Carlos F. DeLara | Logan | Abelard A. Pelaez | Logan | 2nd Wed. |
| Marion | John C. Turner | Fairmont | Grace M. Reynolds | Fairmont | Last Tues. |
| Marshall | David E. Yoho | Glen Dale | Erol Bastug | Glen Dale | 1st Tues. |
| Mason | Ismael O. Jamora | Point Pleasant | Richard L. Slack | Point Pleasant | 4th Tues. |
| McDowell | Bernard M. Swope | Welch | M. Kuppusami | Welch | 2nd Wed. |
| Mercer | Gordon F. Prescott | Princeton | David F. Bell, Jr. | Bluefield | 3rd Mon. |
| Mingo | Russell A. Salton | Williamson | Edward B. Headley | Delbarton | 2nd Wed. |
| Monongalia | K. Douglas Bowers, Jr. | Morgantown | Wilbur Z. Sine | Morgantown | 1st Tues. |
| Ohio | Edward C. Voss, Jr. | Wheeling | Robert L. Joseph | Wheeling | 4th Tues. |
| Parkersburg Academy | Alfonso Morales | Parkersburg | Manuel G. Magno, Jr. | Parkersburg | 1st Thurs. |
| Potomac Valley | David R. Chapman | Keyser | Zinnia Bacol-Giron | Romney | 2nd Wed. |
| Preston | Del Roy R. Davis | Kingwood | C. Y. Moser | Kingwood | 4th Thurs. |
| Raleigh | Joseph A. Maiolo | Beckley | James A. Barnes | Beckley | 3rd Thurs. |
| Summers | Chandra P. Sharma | Hinton | E. L. Jimenez | Hinton | 3rd Mon. |
| Tygart's Valley | S. S. Masilamani | Elkins | Michael M. Stump V | Elkins | 3rd Thurs. |
| Wetzel | Lemoyne Coffield | New Martinsville | Charles P. Watson | New Martinsville | Monthly |
| Wyoming | Frank J. Zsoldos | Mullens | George F. Fordham | Mullens | Quarterly |


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Robert E. O'Connor, M.D.
Moseley H. Winkler, M.D.
Samuel A. Strickland, M.D.

**E.E.N.T.**
John B. Haley, M.D.
John A. B. Holt, M.D.

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Romeo Y. Lim, M.D.
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# Obituaries

### WILLIAM B. BLAKE, JR., M. D.

Dr. William B. Blake, Jr., Huntington thoracic surgeon, died on January 22 in a hospital there. He was 61.

A veteran of World War II, Doctor Blake was Clinical Professor of Surgery at Marshall University School of Medicine. He had practiced for more than 20 years in Huntington.

Doctor Blake, a native of Lynn, Massachusetts, was graduated from DePauw University and received his M. D. degree in 1944 from Jefferson Medical College. Upon graduation, he served with the United States Army Medical Corps and later completed a residency in thoracic surgery at the University of Virginia.

Doctor Blake was a member of the Cabell County Medical Society, the West Virginia State Medical Association and the American Medical Association.

Survivors include the widow; two daughters, Laura Blake of Denver and Sandy Blake of Emporia, Kansas; a son, Steve Blake of Santee, California, and a stepdaughter, Alda Sue Moore of Huntington.

* * *

### RAYMOND M. SLOAN, M. D.

Dr. Raymond M. Sloan, retired Huntington pediatrician, died on February 3 in an Ashland, Kentucky, nursing home. He was 87.

A native of Huntington, he was a former board member of the Family Service Pediatric Clinic and the Baby Clinic there.

Doctor Sloan was a former President and Secretary of the Cabell County Medical Society, and a former member of the Council of the West Virginia State Medical Association.

A veteran of World War I, Doctor Sloan received his M. D. degree in 1920 from the University of Virginia Medical School. He interned at the University's hospital, and completed a residency and postgraduate work at Bellevue Hospital in New York City.

Doctor Sloan was an honorary member of the Cabell County Medical Society, the West Virginia State Medical Association and the American Medical Association.

Surviving are the widow; a daughter, Mrs. Clyde Mynes of Nitro; a son, R. M. Sloan of St. Albans; a stepson, L. S. Burger of Huntington, and a stepdaughter, Mrs. Don Hardman of Houston, Texas.

* * *

### FLORIEN VAUGHN, M. D.

Dr. Florien Vaughn of Mullens, a retired general practitioner, died on January 16 in a Beckley hospital. He was 87.

Doctor Vaughn formerly was a physician for the Tralee Coal Company in Hemphill (McDowell County).

A veteran of World War I, he was a native of Santa Fe, Missouri. He was graduated from the University of Missouri and received his M. D. degree in 1917 from the University of Minnesota Medical School.

Doctor Vaughn formerly was located in Paris and Shelbina, Missouri, before coming to West Virginia in 1944.

He was an honorary member of the Wyoming County Medical Society, the West Virginia State Medical Association and the American Medical Association.

Surviving is one nephew, Gex I. Vaughn of Dallas, Texas.

* * *

### JAMES E. WISE, M. D.

Dr. James E. Wise of Follansbee, a family physician, died on January 30 in a Pittsburgh hospital. He was 57.

Doctor Wise was a Charter Diplomate of the American Board of Family Practice and a Charter Fellow of the American Academy of Family Physicians.

He was Secretary-Treasurer of the Brooke County Medical Society, and was a former President of the staff of Ohio Valley Hospital in Steubenville, Ohio.

A native of Fairmont, Doctor Wise was graduated from Kent State University and received his M. D. degree in 1953 from Temple University School of Medicine. He served his internship and residency at Ohio Valley General Hospital in Wheeling.

Doctor Wise, a veteran of World War II, also was a member of the Brooke County Medical Society, the Fort Steuben Foundation of Medicine, the West Virginia State Medical Association and the American Medical Association.

Survivors include the widow; four daughters, Mrs. James Tokas of Weirton, Mrs. Daniel Welsh of Follansbee, Mrs. Kevin Connolly of Toronto, and Miss Deborah Wise, at home; a son, James E. Wise, Jr., at home, and two brothers, John Wise and Jack Wise, both of Steubenville.

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# County Societies

### McDOWELL

The McDowell County Medical Society met on January 10 at Stevens Clinic Hospital in Welch.

The Society voted unanimously to approve in principle the construction of an intermediate-care nursing home in McDowell County.

The President, Dr. Bernard M. Swope of Welch, appointed new committee members for 1979.—Muthusami Kuppusami, M. D., Secretary.

* * *

### MONONGALIA

The Monongalia County Medical Society met on January 2 at the Old Mill Club in Morgantown.

The speaker for the evening was Dr. Barbara L. Tenney, Associate Professor of Pediatrics at the West Virginia University School of Medicine. —Wilbur Z. Sine, M. D., Secretary.

## Decline In Tonsillectomies Affecting Specialty

Less than half as many tonsillectomies are being performed today as were done in the mid-1960s, and there is a surplus of surgical specialists trained to treat problems of the throat, according to a report in a scientific journal.

"A reduction in the number of trainees in otolaryngology would be in the best interest of the young and other otolaryngologists whose capabilities are now seriously under-utilized," says Rita Nickerson of Harvard Medical School, and colleagues. The article appears in a recent issue of Archives of Otolaryngology.

Taking out tonsils has been about one third of the work load of the highly trained throat specialists, Ms. Nickerson declares. With the decline in the operations, there has been a sharp drop in the work load of these experts.

Otolaryngologists now have shorter work weeks than most other surgeons.

There still aren't many of the trained throat surgeons, around 4,000, with another thousand in training. But there already isn't enough demand for these specialists to keep them fully occupied, and no new ones are needed for some years, she says.



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Jamie Carraway
Executive Director

Rex R. Taggart, M.D.
Medical Director

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# WVU Medical Center
# –News–

*Compiled from material furnished by Mrs. Mary Ellin Wylie, Director, Medical Center News and Information Services, Morgantown, W. Va.*

## NIH Grant To Support 15 To 20 Endocrinology Researchers

Despite growing national competition for grants and cutbacks in federal funds, the National Institutes of Health is supporting a major new program for training young scientists at WVU Medical Center.

A training grant totaling nearly $300,000 will fund the program over a five-year period during which an estimated 15 to 20 scientists will receive support for their postdoctoral research.

Nine senior faculty members from six departments in the School of Medicine and the Department of Animal Science are involved in the interdisciplinary program in the field of endocrinology.

George A. Hedge, Ph. D., Chairman of Physiology and Program Director, said he had "tried to assemble a faculty group whose members had demonstrated the ability to compete successfully" in the increasingly tight market for research funds.

Doctor Hedge also believes funding of the project is strong evidence that WVU Medical Center can get support for its research through the peer review system of screening grant applications.

All of the nine participating faculty members already have major federal support for their research, all related to endocrinology and ranging from the study of insulin-resistance to regulation of cell growth.

The NIH funding will pay part of the cost of the research the fellows will do plus providing for their personal support. Fellows in this context are men and women appointed to a position granting a stipend or living allowance and providing for advanced study or research.

"A principal benefit of a program like this is to provide a method by which investigators are exposed to the work of other laboratories, and the helpful criticism and comment of other investigators," Doctor Hedge said.

Participating faculty members and their departments are Margaret Albrink, M. D., Medicine; James B. Blair, Ph. D., and Fred R. Butcher, Ph. D., Biochemistry; Roy L. Butcher, Ph. D., Obstetrics-Gynecology; Howard D. Colby, Ph. D., and Doctor Hedge, Physiology; E. Keith Inskeep, Ph. D., Professor of Animal Science in the WVU College of Agriculture and Forestry; and Michael G. Mawhinney, Ph. D., and John A. Thomas, Ph. D., Pharmacology.

Doctor Hedge commented, "Is West Virginia getting a fair share of the federal research dollar? Based on the number of quality scientists we have working here, we probably are. Grants tend to follow the right people."

"It's true that states like Massachusetts and California get a much larger proportion of the funds, but that's because more quality scientists are based there. But things are changing and West Virginia is getting more good researchers."

## Solving Billing Problems

A team of two West Virginians is teaching medical administrators across the nation how to lick the medical billing problem and solve other data puzzles with the help of computers.

They received rave reviews with their presentation at a recent West Coast meeting. Another session has been scheduled for administrators in the East and the program has been taped and will be available nationwide.

Glenn D. Crowe, Assistant to the Vice President for Health Sciences at WVU, heads the team, and the other member is William S. Victorson, a WVU alumnus who now works out of Santa Cruz, California. Together they conducted a three-day workship for administrators under sponsorship of the Medical Group Management Association (MGMA) headquartered at Denver. It was designed for MGMA members in western states and attracted persons from 20 states to Seattle.

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# Third-Party News, Views and Program Concerns

## Estrogen's Ill Effects Reversible, Government Study Concludes

A major study published recently concludes that the adverse effects of estrogen drugs on menopausal women are to a great extent reversible if the patient stops taking the drug, the Food and Drug Administration (FDA) said.

The study, published in the New England Journal of Medicine, found the risk of developing cancer of the lining of the uterus "falls quickly after discontinuation" of estrogen therapy.

The study is the latest in a series associating the long-term use of estrogen drugs during and after menopause with an increased risk of cancer of the lining of the uterus.

The new study, supported by funds from the FDA and the National Institutes of Health, was directed by Dr. Hershel Jick of the Boston Collaborative Drug Surveillance Program, Boston University Medical Center. The women studied were members of Group Health Cooperative of Puget Sound, a health care organization in Seattle, Washington.

The study estimates that one to three per cent of women taking estrogen for five years or more will get uterine cancer. About one-tenth of one per cent of women who do not use estrogen for extended periods got uterine cancer, the authors found. This means that, according to the study, women taking estrogens for more than five years have a 10 to 30 times increased risk of uterine cancer. Previous studies have estimated the risk at five to 15 times.

Following a major decline in estrogen use at Group Health in January, 1976, the incidence of uterine cancer fell by about two-thirds six months later. The decrease indicates the adverse effects of estrogens seem to be largely reversible, the authors concluded.

On a nationwide basis, the FDA estimates that estrogen use for menopausal and post-menopausal symptoms declined by 18 per cent from 1975 to 1976, and by another 10 per cent from 1976 to 1977. According to the Boston University study, the incidence of uterine cancer had fallen about 27 per cent nationwide from 1975 to 1977. About five per cent of women in the United States, or 4.1 million, were taking estrogens in 1977.

Dr. J. Richard Crout, director of FDA's Bureau of Drugs, said: "There has been a significant drop in the use of estrogens since their association with uterine cancer was discovered about three years ago. The encouraging finding in Doctor Jick's study is that the risk of uterine cancer due to prolonged use of estrogens can be reversed to a considerable extent if the drug is discontinued."

## Oregon Hospitals 'Significantly' Reduce Price Inflation

Oregon's 75 general hospitals "significantly reduced expense and price inflation in 1978 through voluntary efforts," the State Health Planning and Development Agency reported in announcing the findings of a year-long study. The goal of the Voluntary Effort of the Oregon Association of Hospitals and the Oregon Medical Association was a reduction of two percentage points in 1978. "Our report indicates that hospitals have exceeded their goal," the state agency director said. "The hospital and medical associations and the industry as a whole are to be congratulated."

According to the report, which was required by the Oregon Legislative Assembly, hospital inpatient revenues per patient day were down almost one-third, from a 16.01 per cent rate of increase in 1977 to 10.85 per cent rate last year. Gross revenue increases are projected to drop three percentage points this year, from 14.99 per cent in 1978 to 11.99 per cent in 1979, according to budgets filed with the agency.

The report suggests that legislators consider the problems arising from inadequate reimbursements for Medicare and Medicaid patients. It also points out that increases in hospital expenses vary little from national rates of increase for goods and services which hospitals must purchase.

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E. C. Vass, M. D.

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M. E. Nugent, M. D.
R. V. Pangilinan, M. D.

**Eor, Nose & Throat:**
W. A. Tiu, M. D.

**Orthopedic Surgery:**
E. L. Barrett, M. D.
R. S. Glass, M. D.

**Tharacic Surgery:**
Daniel W. Dickinsan, M. D.

**Obstetrics and Gynecology:**
Robert W. Leibald, M. D.
Robert T. Brandfass, M. D.
A. Athari, M. D.
J. W. Campbell, M. D.

**Urology:**
D. C. Trapp, M. D.
J. B. Franz, M. D.

**Dermatology:**
K. W. Watersan, M. D.

**Internal Medicine:**
A. M. Valentine, M. D.
C. A. Vasquez, M. D.
T. E. Chvasta, M. D.
B. L. VanPelt, M. D.
P. R. Hedges, M. D.
T. G. Kenamand, M. D.
D. L. Latas, M. D.
R. B. Altmeyer, M. D.
W. E. Nable, M. D.

**Psychiatry:**
Stephen D. Ward, M. D.
David Hill, M. D.
David H. Smith, M. D.

**Neuralagy:**
A. L. Wanner, M. D.
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**Roentgenology:**
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Brenda Muklewicz, R. N.
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Evelyn Farester, R. T.

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SPEECH THERAPY
AUDIOMETRY

# Obituaries

### DAVIS W. RITTER, M. D.

Dr. Davis W. Ritter, Hinton surgeon, died on February 9 there. He was 74.

Doctor Ritter was the Summers County Health Officer. He was Secretary of the Summers County Medical Association from 1947 to 1951, and was a member of the West Virginia House of Delegates from 1966 to 1968.

A native of Winchester, Virginia, Doctor Ritter was graduated from Roanoke (Virginia) College and received his M. D. degree in 1929 from the Medical College of Virginia. He served his internship and residency at St. Joseph's Hospital in Reading, Pennsylvania.

Doctor Ritter was a member of the Summers County Medical Society, the West Virginia State Medical Association and the American Medical Association.

Survivors include the widow; a son, Davis W. Ritter, Jr., of Hinton; a daughter, Mrs. Sarah Ann Osborne of Beckley; two brothers, Frank Ritter of Charlottesville, Virginia, and Mark Ritter of Gettysburg, Pennsylvania, and a sister, Mrs. Catherine Weber of Winchester.

* * *

### JOSEPH C. FORD, M. D.

Dr. Joseph C. Ford of St. Petersburg, Florida, formerly of Huntington, died on January 27 at his home in St. Petersburg. He was 88.

Doctor Ford, a general practitioner, moved to Florida in 1956. He was a former member of the Cabell County Medical Society and the West Virginia State Medical Association.

Survivors include a brother, Dr. Charles P. S. Ford of Huntington.

* * *

### PAUL E. WALKER, M. D.

Dr. Paul E. Walker of Crystal River, Florida, formerly of Williamson, died on February 3 in a Gainesville, Florida, hospital. He was 70.

Doctor Walker retired several years ago as Chief of Surgical Services at the Appalachian Regional Hospital in South Williamson and as Director of The Highlands Clinic in Williamson. He formerly had served as President of the medical staff of the Williamson Appalachian Regional Hospital for two years.

Doctor Walker was a Past President of the Mingo County Medical Society.

A native of Monterey, Tennessee, Doctor Walker was graduated from the University of Tennessee, also receiving his M. D. Degree from that institution in 1931. He served his internship at Baptist Memorial Hospital in Memphis, Tennessee, and was a resident in surgery at the U. S. Marine Hospitals in Galveston, Texas, and New Orleans from 1933 to 1936.

Certified by the American Board of Surgery, Doctor Walker was located in Seattle, Washington, for 28 years with the United States Public Health Service. During his career, he had been in charge of intern and resident training in various hospitals, had been a teacher of senior medical students, and had done research in heart surgery.

A veteran of World War II, Doctor Walker was an honorary member of the Mingo County Medical Society, the West Virginia State Medical Association and the American Medical Association.

He also was a member of the American College of Surgeons, American College of Angiology, and the Association of Military Surgeons of the United States.

Survivors include the widow; a son, Paul E. Walker, Jr., of Seattle, and two brothers, Ray Walker of Crystal River, and Robert Walker of Crystal River and Nashville, Tennessee.

**Radiology:**
John A. Lind, M. D.

**Pathology:**
Fulvio Franyutti, M. D.

**Surgery:**
Hu C. Myers, M. D.
A. Kyle Bush, M. D.
J. W. Woodford, M. D.
Dovid C. Snyder, M. D.

**Gynecology and Obstetrics:**
Raymond W. Cronlund, M. D.

**Internal Medicine:**
E. G. Guy, M. D.
B. G. Thimmappa, M. D.
Karl J. Myers, Jr., M. D

**Pediatrics:**
E. G. Kreider, M. D.
J. M. Nissley, M. D.

**Dentistry:**
Glenn B. Poling, D. D. S.

**Ophthalmology:**
Nirmal Kanal, M. D.

Lannie L. Crane
Administrotor

**THE MYERS CLINIC**
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# County Societies

### MONONGALIA

The Monongalia County Medical Society met on March 6 in Morgantown at the Old Mill Club.

A talk on "The Role of Non-Invasive Peripheral Vascular Laboratory" was given by Dr. Ronald A. Savrin, Assistant Professor of Surgery at West Virginia University School of Medicine.

Members were urged to contact their respective state legislators to support or to disapprove health-related bills.—Wilbur Z. Sine, M. D., Secretary.

* * *

### CABELL

The Cabell County Medical Society met on February 9 at the Gateway Inn in Barboursville.

The guest speaker was the Honorable Russell C. Dunbar of Huntington, Chief Judge of the West Virginia Sixth Circuit Court (Cabell County).

Dr. Charles E. Turner of Huntington informed members of public meetings which were to be held in Huntington on February 15 at City Hall regarding the rewriting of several sections of the West Virginia Health Systems Agency, Inc., Plan.

Dr. William L. Neal, Director of the Cabell County Health Department, brought up a problem of cross-over of water supply and drainage which may exist in many public buildings, and then introduced an engineer from the water company, who spoke briefly about the potential problem.—Charles E. Turner, M. D., Secretary.

* * *

### McDOWELL

The McDowell County Medical Society met on February 14 at the Stevens Clinic Hospital in Welch.

The guest speaker was Dr. Everett L. Gage, Jr., of Bluefield, who gave an interesting and detailed presentation on computerized axial tomography.

The Society approved a donation of $115 to Camp Kno-Koma for diabetic children. — Muthusami Kuppusami, M. D., Secretary.

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# Book Review

**CURRENT OBSTETRIC & GYNECOLOGIC DIAGNOSIS AND TREATMENT, 2nd EDITION**—Ralph C. Benson, M. D., and associate authors, Lange Medical Publications, Los Altos, California 94022. 976 Pages. Illustrated. 1978. Price $18.

This rather thick volume is one of a series of texts put out by Lange Medical Publications. The series includes Current Medical Diagnoses and Treatment, Current Pediatric Diagnoses and Treatment, Current Surgical Diagnoses and Treatment, and this title in the obstetric and gynecologic field. The volume is contained within a flexible, thick, plasticized paper cover, and is intended to be revised every second year.

The authors' stated purpose is "to provide a useful book for medical students, residents, family practitioners, nurse midwives and nurse practitioners in obstetrics and gynecology and medical specialists in obstetrics and gynecology both in this country and world-wide without becoming encyclopedic."

It is a rather happy blend of textbook and current clinical applications and therapy. The first 25 chapters deal with gynecology, and the last 18 deal with obstetrics. Like many textbooks, its opening chapters give rather detailed discussions of embryology, anatomy and physiology. This is followed by a chapter detailing the principles of history-taking, physical examination, and gynecologic procedures such as coldoscopy, laparoscopy, and ultrasound. This chapter would be of more interest to medical students than practicing physicians.

It is not until we reach chapters 8-15 that actual pathology is dealt with. Many of these chapters are written by guest or associate authors who are recognized specialists in the area in which they write. With the book having been published on the West Coast, it is interesting to note that the associate authors include 24 physicians from the West Coast, nine from the Midwest, and nine from the eastern medical centers.

In an effort to be useful as a reference book to practicing clinicians and obstetrician-gynecologists, there are some chapters, such as chapter 17, which deal with a variety of matters in very concise form. However, the usefulness of this information would be increased if the index in the back of the book had a larger number of listings.

The last 18 chapters dealing with obstetrics include all the basic data which is found in most of the obstetrical textbooks available today, along with attention to current trends in the field, such as anesthesia, analgesia during labor and delivery, the physician-patient relationship in regards to natural child birth and Lamaze training, and the emotional aspects of pregnancy. There also is one chapter written by a Doctor of Jurisprudence dealing with legal situations which the physician might encounter.

In summary, the practicing physician might find this to be a useful current reference for obstetrical and gynecological thinking in today's practice. Medical students might find it worthwhile parallel reading, although it is unlikely to be chosen as the basic text in obstetrics and gynecology.—T. Keith Edwards, M. D.

## Conference To Explore Rural Health Care Delivery

A joint presentation by two leaders vitally concerned with meeting the needs of rural America will open the 32nd National Conference on Rural Health on April 18th at the Radisson Hotel in St. Paul, Minnesota.

Allan Grant, President of the American Farm Bureau Federation, and Thomas J. Donohue, Vice President of Development for the Chamber of Commerce of the United States and Executive Vice President of the National Chamber Foundation, will set the stage for the conference, which will run through April 21st, by examining, and then establishing a perspective of, the issues in rural health care.

Co-sponsors of the conference, in cooperation with the American Medical Association, are the American Dental Association, American Hospital Association, American Medical Association Auxiliary, American Medical Student Association, American Nurses Association, American Pharmaceutical Association, Cooperative Extension Service of the USDA, Farm Foundation, Minnesota Medical Association, National Association of Counties and National Safety Council.

Goals of the meeting are to explore more effective methods of delivering health care services in rural areas, to enhance the role of the consumer as a partner in health care, to improve communications methods in health education and to examine new directions for the future. More than 1,000 physicians, community leaders, educators and representatives of medical and health care organizations and projects are expected to register for the conference.

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# WVU Medical Center
# –News–

*Compiled from material furnished by Mrs. Mary Ellin Wylie, Director, Medical Center News and Information Services, Morgantown, W. Va.*

## Clinic Making Wider Use Of Laser Beam

A beam of light has brightened prospects at WVU Medical Center for successful treatment of retinal problems.

Dr. Robert R. Trotter, Professor and Chairman of the Division of Ophthalmology, School of Medicine, said the argon laser beam is one of two treatments used in retinal tear without detachment and is the only effective and practical therapy known for diabetic retinopathy.

The Eye Clinic at WVU has been making wider use of the laser in the procedure known as photocoagulation since last September when Dr. Jorn-Hon Liu rejoined the ophthalmology faculty as an Associate Professor.

A native of Taiwan and a graduate of Kaohsiung Medical College, Doctor Liu received his postgraduate training in Taiwan, at WVU Medi-Center, as a clinical fellow at the Wilmer Ophthalmological Institute of Johns Hopkins University, and at the Massachusetts Eye and Ear Infirmary of Harvard Medical School. A member of the WVU Division of Ophthalmology faculty from 1972-75, he has also served on the faculty of the National Defense Medical School of Taiwan.

Retinal detachment is a serious disease which requires prompt treatment. When the retina becomes detached from the choroid, vision deteriorates. If left untreated, most eyes will eventually become blind.

"Nearsighted persons and those who have had cataracts removed previously are more likely to develop retinal problems," Doctor Liu said. "Trauma may play some part, but in most cases a predisposition is present, even in the case of injury or strain."

To repair holes in the retina Doctor Liu uses either cryosurgery or the laser, depending on the position of the tear. If the hole can be reached by the probe, the freezing technique is used. If it is more toward the back of the eye, the laser beam is directed through the pupil.

Both techniques produce tissue reactions which coagulate the choroid and retina and "glue" the holes. Done on an outpatient basis, the procedures usually require only eye drops for anesthesia. Infrequently, patients require injections of anesthetics around the eye if they feel discomfort from the treatment.

More extensive detachment of the retina is repaired at University Hospital by Doctor Liu with a surgical procedure known as scleral buckling.

"The earlier the treatment, the less complicated surgery will be required," Doctor Liu said. "The success rate for early treatment is also higher as is the preservation of visual function."

The amount of vision affected by holes and detachment is determined by the area of the retina involved, Doctor Liu explained, but the presence of certain other symptoms may indicate the development of problems.

**Dr. Jorn-Hon Liu uses the argon laser beam to treat retinal damage in a diabetic patient at the WVU Medical Center Eye Clinic.**

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# Third-Party News, Views and Program Concerns

## Hospital Cost Containment Bill Summarized

In paragraphs that follow this brief introduction is a summary of President Carter's 1979 hospital cost containment bill. It is being pushed hard by Carter and key congressional leaders despite (1) the fact that the hospital industry pulled expense increases down to 12.8 per cent, or nearly three percentage points, in 1978; (2) indications that general inflation is likely to be 10 or 11 per cent this year, with hospitals heavy users of such items as food and energy that are climbing rapidly in price; and (3) an apparent absence of strong public support for the legislation.

The Carter proposals would impose federal controls on hospital expenditures only if hospital spending exceeds a 9.7-per cent rate of increase this year. That's a retreat from the President's call last year for mandatory controls at once. In outline, the new bill resembles the compromise legislation by Sen. Gaylord Nelson, Democrat of Wisconsin, that won Senate approval at the end of the 1978 congressional session, but was not acted upon by the House.

### Three Components

The 9.7-per cent limit on hospitals' rate of increase was arrived at by adding three components:

—an inflation allowance based on the increase in the cost of goods and services purchased by hospitals during 1979. This so-called "market basket" was estimated to be 7.9 per cent in 1979. But if the market basket rate of inflation during the year actually changes, corresponding changes would be made in this component of the national voluntary limit. For example, if actual inflation caused the hospital market basket to rise from 7.9 per cent to 8.2 per cent during the course of the year, then the national voluntary limit would rise correspondingly from 9.7 to 10 per cent, the government said.

—an allowance for population growth would be 0.8 per cent.

—an allowance for net new services: the cost of additional services (e.g., new technology or more lab tests) minus savings from increased productivity and efficiency. This net new services allowance would be 1.0 per cent.

### Exemptions

If the rate of increase in total hospital costs in any state during 1979 is within the national voluntary limit, all hospitals in that state would be exempt from mandatory controls in 1980.

Even if total hospital costs in a state do not meet the limit, individual hospitals would be exempt in 1980 if their rates of increase were at or below the ceiling.

Small non-metropolitan hospitals (under 4,000 admissions), new hospitals (less than three years old) and Health Maintenance Organization hospitals (with 75 per cent of patients enrolled in qualified HMOs) would be exempt from the mandatory program regardless of their rate of increase in 1979.

Hospitals in states with mandatory cost containment programs of their own could be exempt if the states' programs met performance standards.

Hospitals not exempted would be given an allowable rate of increase in total inpatient revenues per admission for 1980. This mandatory limit would include a basic limit—comprised of an allowance for inflation and an allowance for efficiency or inefficiency—and adjustment for exceptional circumstances.

### Inflation Allowance

Each hospital would be granted an inflation allowance to cover its own market basket price increases (increases in the cost of goods and services purchased). This would include an allowance for the actual rate of increase in nonsupervisory wage rates experienced by that hospital.

(Continued on page xviii)

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# Obituaries

### FRANK R. MASKREY, M. D.

Dr. Frank R. Maskrey of Wheeling, retired eye, ear, nose and throat physician and surgeon, died on February 28 in a hospital there. He was 82.

Doctor Maskrey practiced in Bridgeport, Ohio; Charleston, Mississippi; Dillonvale, Ohio, and Wheeling (from 1942 to 1961, when he retired).

A native of Pontypool, England, Doctor Maskrey was graduated from Mt. Union College in Alliance, Ohio, and received his M. D. degree in 1923 from Ohio State University.

A veteran of World War I, he served his internship at Buffalo (New York) General Hospital and completed graduate work at Newark (New Jersey) Eye & Ear Infirmary and New York Polyclinic Hospital in New York City.

Doctor Maskrey was an honorary member of the Ohio County Medical Society, the West Virginia State Medical Association and the American Medical Association.

Surviving are the widow and a daughter, Mrs. Glen Rearick of Wauwatosa, Wisconsin.

* * *

### WILLIAM E. IRONS, M. D.

Dr. William E. Irons of Lewisburg died on April 7 in a Fairlea (Greenbrier County) Hospital. He was 66.

Doctor Irons was a former Huntington surgeon who retired in 1970 and moved, in 1972, to a family farm near Lewisburg. He was a former Chief of Surgery at St. Mary's Hospital in Huntington.

A native of Union (Monroe County), Doctor Irons was graduated from Marshall University and the former two-year West Virginia University School of Medicine, receiving his M. D. degree in 1937 from the Medical College of Virginia.

Doctor Irons interned at St. Mary's Hospital in Huntington and served his surgical residency at Mayo Clinic in Rochester, Minnesota. He was a member of the U. S. Army Medical Corps at the Mayo Clinic during World War II.

Doctor Irons was a member of the American College of Surgeons, International College of Surgeons, Southeastern Surgical Congress, Cabell County Medical Society, West Virginia State Medical Association and the American Medical Association.

He also was a charter member of the Norvell Carter Society medical education fund.

Survivors include the widow; a son, William E. Irons, Jr., of Lewisburg; five daughters, Mrs. Vickie Wilson and Mrs. Nancy Greenstreet, both of Lewisburg; Mrs. Sue Dyer of Barboursville, and Mary Ann and Sally Jane Irons, students at West Virginia University; a brother, W. A. Irons of Union, and a sister, Mrs. Curtis Hedrick of Lewisburg.

## Birth Control Vaccine Undergoing Tests

Within eight to 10 years, women may be able to receive a booster shot making them immune from pregnancy for two to two and one-half years, according to a recent article in *The Washington Post.*

A birth control vaccine being developed at the University of Tennessee has been successfully tested in dogs and lower animals. Trials on primates began in March.

The vaccine, derived from a pig's egg cells, sets a protective barrier around the egg cells of an animal into which it is injected. The barrier prevents sperm from attaching to the egg cells.

**Radiology:**
John A. Lind, M. D.

**Pathology:**
Fulvio Franyutti, M. D.

**Surgery:**
Hu C. Myers, M. D.
A. Kyle Bush, M. D.
J. W. Woodford, M. D.
David C. Snyder, M. D.

**Gynecology and Obstetrics:**
Raymond W. Cronlund, M. D.

**Internal Medicine:**
E. G. Guy, M. D.
B. G. Thimmappa, M. D.
Karl J. Myers, Jr., M. D.

**Pediatrics:**
E. G. Kreider, M. D.
J. M. Nissley, M. D.

**Dentistry:**
Glenn B. Paling, D. D. S.

**Ophthalmology:**
Nirmal Kanal, M. D.

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W. F. Park, M. D.
M. E. Nugent, M. D.
R. V. Pangilinan, M. D.

**Eor, Nose & Throot:**
W. A. Tiu, M. D.

**Orthopedic Surgery:**
E. L. Barrett, M. D.
R. S. Glass, M. D.

**Thorocic Surgery:**
Daniel W. Dickinsan, M. D.

**Obstetrics ond Gynecology:**
Robert W. Leibald, M. D.
Robert T. Brandfass, M. D.
A. Athari, M. D.
J. W. Campbell, M. D.

**Urology:**
D. C. Trapp, M. D.
J. B. Franz, M. D.

**Dermotology:**
K. W. Watersan, M. D.

**Internol Medicine:**
A. M. Valentine, M. D.
C. A. Vasquez, M. D.
T. E. Chvasta, M. D.
B. L. VanPelt, M. D.
P. R. Hedges, M. D.
T. G. Kenamand, M. D.
D. L. Latas, M. D.
R. B. Altmeyer, M. D.
W. E. Nable, M. D.

**Psychiotry:**
Stephen D. Ward, M. D.
David Hill, M. D.
David H. Smith, M. D.

**Neurology:**
A. L. Wanner, M. D.
H. L. Kettler, M. D.

**Roentgenology:**
Drs. Butler, Aceta & Assacs.

**Speech Pathologist ond Audiologist:**
James P. Frum, M. S.

**Clinicol Loborotories:**
Danna Burlenski
Danna Bryan

**Physicion Assistonts:**
Joann Green, P. A.
Michael G. Siman, P. A.

**Technologists:**
Electracardiagraphy:
Betty Maguire, R. N.
Brenda Muklewicz, R. N.
Electraencephalagraphy:
Juanita Stane, R. N.
Raentgenalagy:
Evelyn Farester, R. T.

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L. L. Cline, Executive Directar
D. G. Andersan, Business Manager
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Samuel A. Strickland, M.D.

**E.E.N.T.**
John B. Haley, M.D.
John A. B. Holt, M.D.

**OTOLARYNGOLOGY**
Romeo Y. Lim, M.D.
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**OTOLOGY**
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MAXILLO-FACIAL PLASTIC SURGERY
RECONSTRUCTIVE SURGERY
ENDOSCOPY
$CO_2$ LASER
SPEECH THERAPY
AUDIOMETRY

# County Societies

### MONONGALIA

The Monongalia County Medical Society met on April 3 in Morgantown at the Old Mill Club.

The scientific program, "Lymphomas," was presented by Dr. Peter C. Raich, Professor of Medicine and Chairman, Department of Hematology/Oncology, West Virginia University School of Medicine.—Wilbur Z. Sine, M. D., Secretary.

* * *

### McDOWELL

The McDowell County Medical Society met on March 14 at the Candlelight Restaurant in Welch.

The scientific program, sponsored by Merck Sharp & Dohme, consisted of a movie, "A New Dimension in Antibiotic Therapy," and a presentation by Harold C. Neu, M. D., Professor of Medicine and Pharmacology at Columbia University.

Doctor Neu's presentation mainly involved beta-lactam antibiotics.—Muthusami Kuppusami, M. D., Secretary.

*THIRD-PARTY NEWS . . .*
*Continued From Page xiv*

Each hospital would be given an allowance based upon its efficiency or inefficiency. Efficiency would be measured by comparing the hospital's previous actual costs with those of other hospitals of similar size and location. Efficient hospitals would be given a bonus. Inefficient hospitals would be penalized.

Hospitals with unusual circumstances, such as changes in admissions, would have their basic limit adjusted.

Once the mandatory limit on the allowable rate of increase on total inpatient revenues per admission is established, it would be enforced in two ways:

—the refusal by Medicare, Medicaid and Blue Cross to pay costs in excess of the hospital's mandatory limit; and,

—a 150-per cent tax on excess revenues collected by the hospital from other payers, unless these excess revenues are set aside in a special account and used to reduce prices to private patients in future years.


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# Book Review

**BASIC AND CLINICAL IMMUNOLOGY, 2ND EDITION**—H. Hugh Fudenberg, M. D.; Daniel P. Stites, M. D.; Joseph L. Caldwell, M. D.; and J. Vivian Wells, M. D., Lange Medical Publications, Los Altos, California 94022. 758 Pages. 1978. Price $14.50.

The editors of the 2nd edition of this softbound volume of 758 pages are clinically oriented physician-immunologists who successfully permeate the book with practical reality. It is not a book which can be skimmed in one evening, and is a must for the library of all allergists, immunologists, pediatricians, internists and others who work in the areas of basic and clinical immunology. It is an excellent book for those physicians who are preparing for their specialty board examinations.

The overall organization of the book is divided into four sections, and contains chapters prepared by 52 authors. Each chapter has been revised by the authors to include new information and to remove outdated material. Recent advances in the field of immunology have made necessary the addition of several new chapters.

The four sections are: I. Basic Immunology, II. Immunobiology, III. Immunologic Laboratory Tests, and IV. Clinical Immunology. The first section describes the fundamentals of immunochemistry and cellular immunology. The second section applies this knowledge to the area of immunobiology. The third section describes the immunologic laboratory studies which are available for evaluation of patients, and the fourth section presents the immunologic aspects of human diseases. The authors have stated that the book is not intended to be a manual of clinical treatment and that more comprehensive medical texts should be consulted for this purpose.

This book, in the reviewer's opinion, should be in every medical library even with the understanding that it is to be revised into a 3rd edition in 1980. In the meantime, this 2nd edition is a lucid and valuable addition to the practical library of the student and practitioner in medicine. The $14.50 price of this book represents one of today's best medical literary bargains.—Merle S. Scherr, M. D.

**REVIEW OF MEDICAL MICROBIOLOGY, 13th EDITION**—Ernest Jawetz, Ph. D., M. D.; Joseph L. Melnick, Ph. D., and Edward A. Adelberg, Ph. D. Lange Medical Publications, Los Altos, California 94022. 550 Pages. 1978. Price $12.

*Editor's Note*: Below is another book review by Professor dr. Victoria Zinca of Bucharest, Romania. Doctor Zinca, Member of the International Academy of Cytology, requested her first book in September, 1977. She noted at the time medical books lost in the earthquake in Romania in March, 1977. Physicians who wish to help replace medical texts may send them to Doctor Zinca at this address: P. Box 637, P. Office L R-70100, Bucharest, Romania.

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The book, *Review of Medical Microbiology, 13th Edition*, is a genuine, authoritative, up-to-date and comprehensive treatise in the field of medical microbiology. The book presents all aspects of this medical specialty, which are of particular significance in the realm of clinical infections and chemotherapy.

The well-written volume contains 41 chapters which lead to a clear understanding of microbiologic principles, an understanding which today has become a necessity as a consequence of important developments in biochemistry, genetics, immunology, virology and chemotherapy.

A considerable portion of the book has been devoted to the discussion of relevant basic science aspects, which extends its usefulness.

The volume is directed primarily at medical students, house officers and practicing physicians. As a valuable source of information, it also would be helpful for research workers concerned with biology and veterinary medicine.

The book, which is unusually well-illustrated, is very valuable and is highly recommended. — Professor dr. Victoria Zinca M.I.A.C.


**ASPEN MUSHROOM CONFERENCE**

Identification of edible, poisonous and hallucinogenic mushrooms. Treatment of mushroom poisoning. Microscopy. Novice and advanced courses. AMA Category I. July 29-August 3, 1979. Wildwood Inn, Snowmass-at-Aspen, Colorado. Contact: Beth Israel Hospital, 1601 Lowell Boulevard, Denver, CO 80204. Telephone: (303) 825-2190, Extension 550.

# Charlotte Treatment Center

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The Center is a private, non-profit corporation dedicated to providing effective treatment at a reasonable cost—treatment which will restore the sick alcoholic, and the family of the alcoholic, to sober, happy and rewarding lives.

Jamie Carraway
Executive Director

Rex R. Taggart, M.D.
Medical Director

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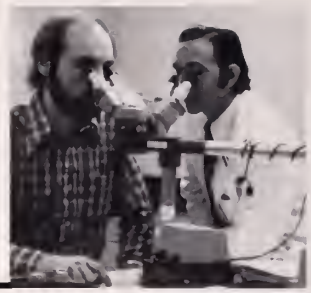
# WVU Medical Center
# —News—



*Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.*

## Three Join Department Of Radiology

One associate and two assistant professors have joined the faculty of the Department of Radiology.

Joseph A. Horton, M. D., Associate Professor, comes to WVU from the University of Pennsylvania where he served on the faculty for one year. Prior to that he was a postdoctoral fellow in neuroradiology and chemistry at the University of Pittsburgh and a staff physician at Presbyterian University Hospital. A graduate of Massachusetts Institute of Technology, he received his medical degree from Tulane University.

Amelia J. Cardo, M. D., is a graduate of Georgian Court College, Lakewood, New Jersey, and the New Jersey Medical School. She completed her postgraduate training in radiology at WVU.

Mohammad R. Radi, M. D., is a graduate of the University of Tabriz Medical School in Iran and took postgraduate study in that country and at affiliated hospitals of Wayne State University in Detroit. He comes to WVU from Richmond where he completed a one-year fellowship in neuroradiology at the Medical College of Virginia.

## Help For Chronic Pain Sought In Computerized Study

A solution to the problem of chronic, disabling pain and an understanding of its physical, psychological, social, cultural and economic facets is being sought at WVU Medical Center.

A computerized study which analyzes responses by 200 patients to 100 questions may provide many answers to this problem which affects 35 million Americans.

Robert Bettinger, M. D., Assistant Professor of Anesthesiology and Director of the WVU Pain Clinic, reported on the study at the June meeting of the West Virginia State Society of Anesthesiologists held at Lakeview Inn in Morgantown. His was one of eight papers presented.

## Student One Of 11 In U. S. Chosen For Study

An interest in the mechanism of action of vitamin K won a WVU medical student support from the Nutritional Research Foundation to conduct studies this summer at the WVU Medical Center.

Victor Lee of Oak Hill is one of only 11 medical students from throughout the United States whose project proposals were chosen by the foundation, and the first at WVU.

Vitamin K is required for the blood coagulation process to occur. The proteins that function in this process are not well characterized. Lee is particularly interested in one of these proteins—a specific calcium-binding one.

Lee, who has completed his first year, is the son of Dr. and Mrs. Chuan-Hsiang Lee of Oak Hill.

## Physicians Present Papers In San Diego, Jamaica

Dr. Romeo Y. Lim, Clinical Associate Professor of Otolaryngology, WVU Charleston Division, and an attending staff physician at The Eye and Ear Clinic of Charleston, was the guest speaker at the recent annual meeting of the Society of Philippine Surgeons of America in San Diego. His topics were "Methods of Reconstructing the Cervical Esophagus" and "Management of Face and Neck Trauma."

Charles A. White, M. D., Chairman of the Department of Obstetrics and Gynecology, West Virginia School of Medicine, was guest speaker recently at a meeting of the Brabham Society in Kingston, Jamaica. The Society, a group of Jamaican obstetricians and gynecologists, met in conjunction with a conference of the West Indies Section, District IV of the American College of Obstetricians and Gynecologists.

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# Third-Party News, Views and Program Concerns

## Catastrophic Insurance Now A Possibility

Unexpected Congressional pirouetting has made the chances of some form of a national catastrophic health insurance plan a distinct possibility in the immediate future — a possibility ruled out by most lawmakers earlier in the 1979 session.

The first domino to fall was the decision of President Carter to go with a first-stage catastrophic national health insurance plan in the face of strong opposition from organized labor and Sen. Edward Kennedy, Massachusetts Democrat, who seek a more comprehensive plan.

Then, Chairman Russell Long, Democrat of Louisiana, of the Senate Finance Committee, introduced a significant modification of his long-standing catastrophic measure that gives private health insurance a much larger role and eliminates the controversial payroll tax feature.

At the same time, leading Republican Senators —Robert Dole (Kansas), John Danforth (Missouri), and Pete Domenici (New Mexico)—offered their own, more limited catastrophic benefit approach.

As if a house of cards were falling, though the timing was coincidental, the Kennedy-Labor forces leaked their new NHI proposal, a sharply-scaled-back plan whose first phase looks a lot like catastrophic.

### Differences Mark Plans

Many differences have separated the various plans, especially in the area of controls, but the coalescing around the broad general theme of catastrophic of such divergent and once-hostile factions has signaled a new ball game on NHI and makes Congressional passage of a NHI plan by 1980 a possibility.

The great attraction of catastrophic is the low price tag, as little as $5 billion compared with the $30 billion-and-more cost of even the most modest comprehensive approach. And, from the political standpoint, there is undeniable voter appeal in the idea of protection against the costs of severe, prolonged illness or accident.

The dominant Congressional figure on catastrophic through the years has been Senator Long, who with a few committee cohorts such as Sens. Herman Talmadge (D-Georgia) and Abraham Ribicoff (D-Connecticut), appeared to be waging a lonely battle against comprehensive plans backed by previous administrations and by Labor.

Everything is going Long's way this year. Carter's decision was a victory for him and a bitter pill for Kennedy. The support of Long's three Republican members on his Finance Committee for the catastrophic concept might forestall a party-line fight. The powerful lawmaker acts as if he's scenting a legislative triumph.

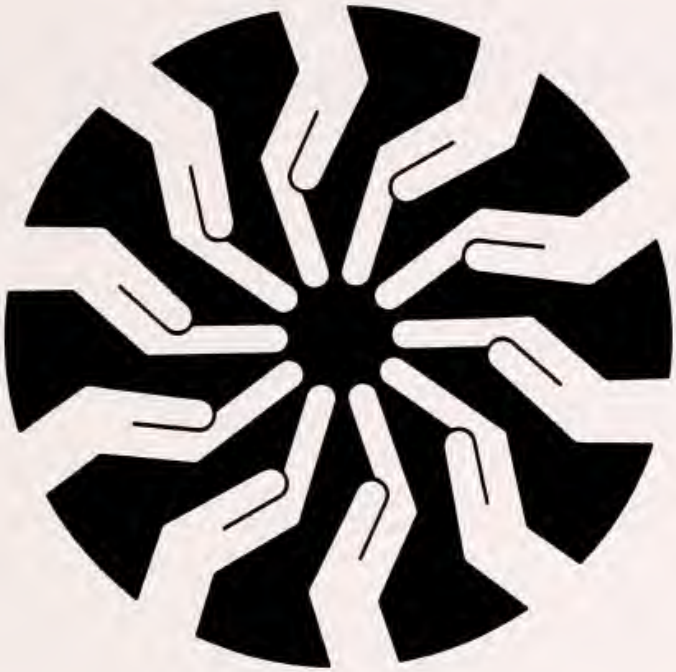
### New Role for Employers

Long's new bill requires that employers provide catastrophic coverage. Wiped out is the provision in his previous bill—still before the Finance Committee—that would have financed this coverage through a one-per cent payroll tax. The change pulls federal involvement several steps back and makes the measure far more palatable to private health insurers. Small businesses would receive tax breaks for providing this coverage and the self-employed would be entitled to a tax reduction.

Benefits in Long's plan would begin after $2,000 of physicians' bills and 60 days of hospitalization have been accrued. Long has said he would consider lowering these levels.

The Dole-Danforth-Domenici bill also requires employers to offer catastrophic benefits through private health insurance with a "deductible" of $5,000 and 60 days of hospitalization. Employees would be free to choose whether to participate. The self-employed could purchase catastrophic policies that insurers would have to provide under agreements with the government. Medicare's coverage would be extended and liberalized. States would be required to provide catastrophic Medicaid benefits.

Long congratulated Dole for introducing the measure. He said, "I hope we can agree on something that would overwhelmingly muster votes on both sides of the aisle."



# 1929-1979

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# Obituaries

### JOSEPH HORSHAM, M. D.

Dr. Joseph Horsham of Charleston, a general practitioner, died on April 20 in a hospital there. He was 92.

A native of Bucton Village, British Guiana, Doctor Horsham came to Charleston in 1927.

He received his M. D. degree in 1918 from Meharry Medical School in Nashville, Tennessee, and did post graduate work at the Royal College of Physicians in Edinburg, Scotland, and at the Royal College of Physicians and Surgeons in Glasgow, Scotland.

Doctor Horsham formed the first practical nurses organization in Charleston, and was a charter member of the Kanawha County Medical Association.

He was a member of the Kanawha Medical Society, the West Virginia State Medical Association, American Medical Association, National Medical Association, Interstate Postgraduate Association, and the John Andrews Clinical Society.

Surviving are the widow and a son, James Horsham of Chicago.

* * *

### JOHN G. THONER, M. D.

Dr. John G. Thoner, obstetrician in the Wheeling area for 50 years, died on April 17 in a hospital there. He was 86.

A former Secretary of the Ohio County Medical Society, Doctor Thoner received his M. D. Degree in 1919 from the University of Maryland. He served his internship and residency at Mercy Hospital in Baltimore.

After a period of general practice in the Wheeling area, he specialized in obstetrics at McGee Hospital in Pittsburgh. He then returned to Wheeling, where he practiced until his retirement in 1968.

Doctor Thoner, after his long affiliation with Wheeling Hospital, was appointed as honorary Chief of the Obstetrical-Gynecological Department in 1961.

He was an honorary member of the Ohio County Medical Society, the West Virginia State Medical Association and the American Medical Association, and was a member of the Fort Henry Academy of Medicine and the American College of Obstetrics and Gynecology.

Surviving are the widow and three nieces.

* * *

### W. F. WORK, M. D.

Doctor W. F. Work, a general practitioner in Charleston for 53 years, died on April 15 in a hospital there. He was 81.

Doctor Work was a former coroner of Kanawha County.

He was graduated from West Virginia University and received his M. D. degree in 1926 from the Medical College of Virginia.

Doctor Work was a member of the American Proctology Association, and was an honorary member of the Kanawha Medical Society, the West Virginia State Medical Association and the American Medical Association.

Surviving are the widow; a son, William F. Work, Jr., of Louisville, Kentucky, and two sisters, Mildred and Julia Work of Titusville, Florida.

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John A. Lind, M. D.

**Pathology:**
Fulvio Franyutti, M. D.

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A. Kyle Bush, M. D.
J. W. Woodford, M. D.
David C. Snyder, M. D.

**Gynecology and Obstetrics:**
Raymond W. Cronlund, M. D.

**Internal Medicine:**
E. G. Guy, M. D.
B. G. Thimmappa, M. D.
Karl J. Myers, Jr., M. D.

**Pediatrics:**
E. G. Kreider, M. D.
J. M. Nissley, M. D.

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Glenn B. Paling, D. D. S.

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M. E. Nugent, M. D.
R. V. Pangilinan, M. D.

**Ear, Nose & Throat:**
W. A. Tiu, M. D.

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A. Athari, M. D.
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P. R. Hedges, M. D.
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Michael G. Simon, P. A.

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# County Societies

### CABELL

The Cabell County Medical Society met on April 12 at the Gateway Inn in Barboursville.

The guest speaker was Ottie Adkins, Huntington Chief of Police. Chief Adkins pointed out many of the causes of stress in police officers, nothing that the medical and law enforcement professions share, among other things, high suicide and divorce rates, which are indicative of stress.

Chief Adkins commented that the stress most bothersome to police officers is not the stress of their day-to-day duties, but the stress that comes from the court system itself—difficulty in obtaining convictions, and dismissal of cases without full explanation to those who brought the charges and enforced the law.

In general terms, Chief Adkins discussed the problems of drug abuse and control of vice, and pointed out the many pressures brought to bear upon the Police Department, either to increase or decrease police pressure. Following his presentation, which was well received by the membership, a question-and-answer period was held.—Charles E. Turner, M. D., Secretary.

* * *

### McDOWELL

The McDowell County Medical Society met on April 11 at the Stevens Clinic Hospital in Welch.

Dr. Ross M. Patton of Gary presented a program on cardiovascular stress testing.—Allen Carr, M. D., Acting Secretary.


**ASPEN MUSHROOM CONFERENCE**

Identification of edible, poisonous and hallucinogenic mushrooms. Treatment of mushroom poisoning. Microscopy. Novice and advanced courses. AMA Category I. July 29-August 3, 1979. Wildwood Inn, Snowmass-at-Aspen, Colorado. Contact: Beth Israel Hospital, 1601 Lowell Boulevard, Denver, CO 80204. Telephone: (303) 825-2190, Extension 550.

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In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.

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*This drug has been classified "probably" effective in treating functional bowel/irritable bowel syndrome.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:
King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

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INOICATIONS
For use as adjunctive therapy in the treatment of peptic ulcer.
IT SHOULO BE NOTEO AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURRENCE AS TO THE VALUE OF ANTICHOLINERGICS/ANTISPASMOOICS IN THE TREATMENT OF GASTRIC ULCER. IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGIC/ANTISPASMOOIC DRUGS AIO IN THE HEALING OF A PEPTIC ULCER, OECREASE THE RATE OF RECURRENCES, OR PREVENT COMPLICATION

Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FOA has classified the following indications as "probably" effective
May also be useful in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis, and functional gastrointestinal disorders); and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon).
THESE FUNCTIONAL OISORDERS ARE OFTEN RELIEVEO BY VARYING COMBINATIONS OF SEOATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS.
For use in the treatment of infant colic (syrup).
Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis. WARNINGS In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug PRECAUTIONS Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy Use with caution in patients with. autonomic neuropathy; hepatic or renal disease, ulcerative colitis—Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon; hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension; hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
It should be noted that the use of anticholinergic/antispasmodic drugs in the treatment of gastric ulcer may produce a delay in gastric emptying time and may complicate such therapy (antral stasis). Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. With overdosage, a curare-like action may occur. AOVERSE REACTIONS: Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response The physician must delineate these Adverse reactions may include xerostomia; urinary hesitancy and retention, blurred vision and tachycardia, palpitations; mydriasis; cycloplegia, increased ocular tension; loss of taste, headache, nervousness; drowsiness; weakness; dizziness, insomnia, nausea; vomiting; impotence, suppression of lactation, constipation; bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis; urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. OOSAGE AND ADMINISTRATION Dosage must be adjusted to individual patient's needs.
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Product Information as of October, 1976

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# Book Review

**THE MULTIPLE SCLEROSIS DIET BOOK** —Roy L. Swank, M. D., Ph. D., and Mary Helen Pullen. Doubleday and Company, Inc., 245 Park Avenue, New York, New York 10017. 326 Pages. 1977. Price $8.95.

The book was written primarily to help patients with multiple sclerosis or those needing a low-fat diet.

The low-fat diet offers hope possibly to decrease the threat of abnormal conditions associated with hypercholesterolemia, where the key words must be preventive medicine. The entire book states plainly the relation of reducing and controlling fat through sensible substitution of polyunsaturated for saturated fat, and is in keeping with the most recent medical concepts.

The recipes included produce delicious, wholesome food for the entire family, or are those that require low-fat diet for the treatment of multiple sclerosis, heart disease and stroke.

The master plan presents diets that are sufficient in vitamins, minerals and adequate proportions of fat, protein and carbohydrates. The book is completely updated to include oriental foods and gourmet type of foods as well as hors d'oeuvres. The preparation and the measurements of the ingredients of the various recipes are put forth in simple terms that everyone should be able to understand.

It certainly is a good book and should be in the hands of those for whom a low-fat diet is recommended, including people with hypertension and diabetes mellitus.

Doctor Swank, however, does not make comparisons nor indicate whether he believes his diet is better or worse than Evers' diet, McDougal's diet or Kemper's diet.

We highly recommend the book for patients or the general public.—Stephen Namick, M. D., and Mrs. Helen W. Namick, R. N.

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**SURGEON UNDER THE KNIFE**—William A. Nolen, M. D., Dell Publishing Company, Inc., 1 Dag Hammarskjold Plaza, New York, New York 10017. 221 Pages. 1976. Price $1.95.

This paperback book is not a novel. It is a charming and personal story of a physician who records his fear, his reactions and his struggles during a trying time in his life. The time encompasses his frightening discovery that he had

angina, the difficult choice of coronary by-pass surgery, and his recovery. His problems with the denial of illness, his reaction to pain, the overwhelming depression, the relationships with his physicians and the difficulty in following physician instructions are discussed with warmth and candor.

This book is written for the lay public with non-technical discussion of the anatomy and pathophysiology of heart disease. It is a good book to recommend to patients and their families who are considering heart surgery. There are a few weaknesses. The book is pro-coronary by-pass surgery. It is written for those who may have to undergo life-threatening surgery. It would not help a patient who has surgery pending which is not life-threatening. Doctor Nolen tends to be dogmatic in his feelings about patient-physician relationships. Despite these few weaknesses this book can be an excellent source of compassionate counseling for selected patients. —W. F. Daniels, Jr., M. D.

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**MEDICINE IN KENTUCKY**—John H. Ellis, The University Press of Kentucky, Lexington 40506. 96 Pages. 1977. Price $4.95.

As a novice history and medical antique buff, I was looking forward to reading *Medicine in Kentucky*. I was slightly disappointed. The back cover described Mr. Ellis' writing as an informed and entertaining essay. Although the book is scholarly, I did not find it to be entertaining. The author stated in his preface that his purpose was "to present a brief history of Kentucky medicine from early times to the present" and that he "confined the account mostly to the development of professional institutions."

The chapter, "Frontier Background," describes well the influx of disease into a frontier area that accompanied the migration of people. In this frontier, there were no restraints upon individuals who claimed to be physicians. Colonial doctors had fierce competition between themselves and were regarded often as a quarrelsome lot.

The development and failure of the various medical schools in Kentucky was confusing and difficult to follow. The medical department at Transylvania University at Lexington was started in November, 1817, but dissolved in 1859. The Louisville Medical Institute began in November, 1837. By 1900, there were seven medical schools located in Louisville. The book ends with a description of the political struggles involved in the establishment of the University of Kentucky Medical College at Lexington in 1956.

The chapter, "Reform and Reconstruction," highlighted two influential Kentuckians, Joseph N. McCormack, M. D., and Abraham Flexner. Doctor McCormack was very dynamic in organizing the Kentucky Medical Association. He became an important crusader and organizer for the American Medical Association. Doctor McCormack and his son, Arthur, were instrumental in promoting public health and preventive medicine. They, with the help of various lay people, led the fights against tuberculosis, trachoma, hookworm and high infant and maternal mortality. Abraham Flexner wrote the classic report which led to the improvement of medical education in the United States.

This book has excellent references. I recommend it for the serious student of history of medicine.—W. F. Daniels, Jr., M. D.


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**ANESTHESIOLOGIST AVAILABLE**—Board eligible, university trained anesthesiologist wishes to relocate in West Virginia for group or fee for service. Presently working in university hospital in all fields of anesthesiology including open heart and obstetrics. Contact: Jitendra G. Patel, M. D., 133-52 Avery Avenue, Flushing N. Y. 11355. Telephone: Day (212) 430-2872; or evening (212) 939-7979.

**PSYCHIATRIST NEEDED** — Three-county comprehensive community mental health center located in southern West Virginia is seeking full-time Director of Outcare. Outstanding fringe benefits include insurance (health, dental, life, malpractice), retirement plus SS, sick leave, vacation and 12 holidays. E.O.E. Send resume to Credentials Committee, Southern Highlands Community Mental Health Center, 12th Street Extension, Princeton, WV 24740. Telephone: Doctor Langan (304) 425-9541.

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# WVU Medical Center
# —News—

*Compiled from material furnished by Mrs. Mary Ellin Wylie, Director, Medical Center News and Information Services, Morgantown, W. Va.*

## Dr. Alvin L. Watne Installed As Society President

Alvin L. Watne, Professor and Chairman of Surgery, recently was formally installed in Chicago as President of the Warren H. Cole Society.

The 177-member group, composed of surgical alumni of Chicago's University of Illinois Hospitals, is named for the prominent surgeon, now retired, who headed that medical school's department of surgery for 30 years.

Doctor Watne is the Society's 18th President. He also was moderator of a session on "Controversies in Care of Surgical Patients" for the sixth Warren H. Cole Symposium, held in conjunction with the Society's annual meeting.

Doctor Watne was Associate Chief Cancer Research Surgeon at Roswell Park Memorial Institute in Buffalo, New York, when he was named in 1962 as Charleston Foundation Professor of Cancer Research at WVU—a title he still holds. He was appointed Chairman of the Department of Surgery in 1975.

## Student Proposals Merit Two Fellowships

Two School of Medicine students have been awarded SmithKline Medical Perspectives fellowships totalling more than $9,000 for the coming year.

Traditionally, only one fellowship is awarded in a medical school, but because of the promise of the proposals submitted by Suzanne B. Canning of Morgantown and Joan Garska Potter of St. Albans, both were selected.

The Medical Perspectives program is administered by the National Fund for Medical Education, a public foundation that has supported innovations in medical education since 1950. The program is made possible through a grant from the SmithKline Foundation and is available to students enrolled in any school of medicine or osteopathy in the United States.

Fellowships are awarded for a wide variety of projects involving creativity, innovation and originality. They are intended to stimulate creative thinking which leads to an improved understanding of clinical medicine and/or the delivery of health care, and give students experiences not usually encountered in the usual course of their education.

Fellowships cover related costs of the project and transportation and, in the case of Ms. Canning, living expenses, tuition and fees.

Ms. Canning's research project will give her experience in psychiatry, the specialty area she will enter following her graduation from medical school.

An affirmation of a link between alcoholism and the phobic personality forms the basis for her research.

### Phobic Personality Disorder

Her hypothesis states that a phobic personality disorder is the basis for the alcoholic binge drinkers syndrome and that the phobic uses alcohol to mask or disguise his excessive, irrational and persistent fear.

"If this causal relationship exists," she said, "the possibility for providing more effective treatment for the alcoholic is enormous. Desensitization and drug therapy along with psychotherapy can offer a new hope for a 'cure' for the chronic binge drinker."

Ms. Potter, a fourth-year student, will be concerned with stresses within the family when one of its members is ill, the recognition of stress-related illness, and the role of the family physician in evaluating and alleviating these problems.

In studying family interactions, Ms. Potter, who is now taking clinical training at the Charleston Division of the WVU Medical Center, will observe and interview selected patients and their families at the Kanawha Valley Family Practice Center. She also will select, observe and interview hospital patients and their families at the Charleston Area Medical Center.

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# Third-Party News, Views and Program Concerns

## Doctors Urged Not To Delay Reporting Claims

(*Editor's Note*: The following material was prepared for *The Journal* by Aetna Life & Casualty, the carrier for the Medical Association-sponsored professional liability insurance program.)

Professional liability insurance historically has experienced a delay in claim reporting, as compared to other forms of insurance. Many factors contribute to this delay, and most of them are beyond the control of the insured physician.

In the past, however, some physicians have believed incorrectly that reporting a potential claim would affect adversely premium level or even future insurability. This belief caused delays in reporting out of the hope the potential claim would not materialize. The intentional delay in claim reporting violates the insurance policy provision requiring a report to be made to the company as soon as practicable. *The violation possibly could lead to the loss of the protection of the policy for the insured physician.*

The average delay in reporting claims in West Virginia for all claims received in 1978 was 15.4 months. This delay can cause problems to the company in providing a proper disposition of cases. The investigation is hampered by unavailability of potential witnesses; poor memory of past events, and misplacement of medical charts and records. A good defense can be harmed.

Several events might occur which will provide an indication to the physician that a potential claim exists. It will help to review some of the more common indicators: (1) loss of rapport or consistently poor rapport; (2) unreasonable demands from the patient or the patient's family; (3) requests from a lawyer for medical records; (4) poor results; and (5) verbal threat of legal action.

If any of these indicators are present, the physician should make a prompt report to the company. In this way the insured physician has satisfied the reporting provisions of the policy and a late reporting situation has been avoided. A good beginning for defense preparation and case disposition has been made.

## Fund Employee Assigned To Aid Providers

"In a continuing effort to respond to the needs of the medical community," State Workmen's Compensation Commissioner George D. Blizzard II has assigned a Fund employee full-time duties as a field representative for health care providers.

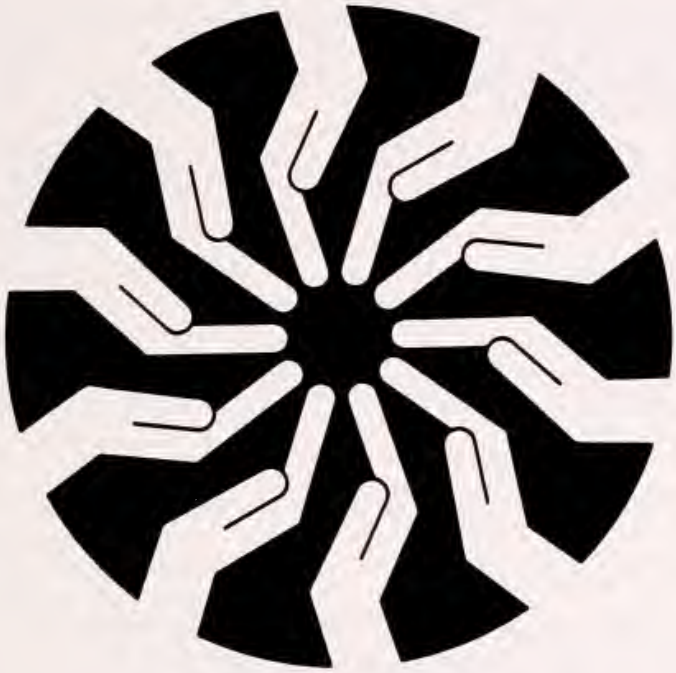
Joseph I. Stone, Administrative Assistant, Claims Processing, has been in the field for approximately two months, contacting hospitals and other medical facilities to set up initial visits. Mr. Stone's primary function will be to meet with health care providers to discuss and isolate mutual problems relating to the processing and payment of compensation claims so that steps can be taken to solve these problems.

Mr. Stone may be contacted by calling 348-5940, or by writing to him at the Workmen's Compensation Fund, 112 California Avenue, Charleston 25305.

## Risk Index For Chronic Lung Disease Initiated

The award of two contracts for the development of an index that will be used to estimate the potential risk of developing chronic obstructive lung disease (COLD) has been announced by the Division of Lung Diseases, National Heart, Lung, and Blood Institute. Estimating the potential risk will be on the basis of an individual's characteristics and exposure to environmental factors that may be major contributors to a disease affecting an estimated seven million Americans.

These contracts represent the first phase of a prevention program using risk assessments to make individuals aware of their chances of developing COLD, emphasizing the dangers of smoking as the leading risk factor.



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# Obituaries

### WADE H. RARDIN, M. D.

Dr. Wade H. Rardin of Beckley died on May 15 in a hospital there. He was 65.

Doctor Rardin was Chief of Anesthesiology at Raleigh General Hospital in Beckley from 1943 to 1979.

He was Chairman of the Board of Trustees at Raleigh General and was a Past President of the Raleigh County Medical Society.

Doctor Rardin received his M. D. degree in 1941 from the Medical College of Virginia. He served his internship and residency at Chesapeake & Ohio Hospital in Huntington.

In addition to the Raleigh County Medical Society, he was a member of the West Virginia State Medical Association, the American Medical Association, Southern Medical Association, and American Society of Anesthesiologists.

Survivors include the widow; a daughter, Mrs. Stephen Bibb of Raleigh, North Carolina; three sisters, Mrs. Ada Archer of Sandyville, Mrs. Addie Brackenridge of Pittsburgh and Mrs. Bessie Truman of Mineral Wells, and a brother, W. Glen Rardin of Roanoke, Virginia.

* * *

### DANIEL D. UPTHEGROVE, M. D.

Dr. Daniel D. Upthegrove of Charleston, a psychiatrist, died in a hospital there on June 1. He was 41.

Doctor Upthegrove was Associate Professor, Behavioral Medicine and Psychiatry, Charleston Division, West Virginia University Medical Center.

A native of Sacramento, California, Doctor Upthegrove was graduated from Arlington State College in Texas, earned a Ph. D. degree in physiology in 1963 from the University of Texas Southwestern Medical School, and received his M. D. degree in 1970 from WVU. He served his internship and residency at WVU in Morgantown.

Survivors include the widow; two daughters, Linda and Rachel Upthegrove, both at home; the mother, Mrs. Gertrude Upthegrove of Sacramento; a brother, Richard Upthegrove of Los Angeles, and six sisters, Mrs. Tony LaMonica and Mrs. Nettie McGoey, both of Sacramento; Mrs. Robert Woodman of Redwood City, California; Mrs. William Sweet, of Idaho Falls, Idaho; Mrs. Donald Hutcheson of Texas, and Ms. Penny Confer of Denver.

* * *

### ENOCH D. STAATS, M. D.

Dr. Enoch D. Staats of Ripley died on May 12 in a Cleveland, Ohio, hospital. He was 76.

Doctor Staats had practiced in Jackson and Kanawha counties, and was a staff physician at Staats Hospital in Charleston.

A native of Ripley, he was a graduate of West Virginia University and Otterbein College, receiving his M. D. degree in 1929 from Jefferson Medical College.

Doctor Staats was a member of the Kanawha Medical Society, the West Virginia State Medical Association, the American Medical Association, and the West Virginia Chapter, American Academy of Family Physicians.

Survivors include the widow; two daughters, Mrs. Dotty Kerns of Charleston and Mrs. Helen Harris of Grand Rapids, Michigan; a brother, W. W. Staats of Ripley, and a sister, Mrs. Theo S. Maddox of Winter Park, Florida.

* * *

### CLARENCE E. LEWIS, M. D.

Dr. Clarence E. Lewis of Charleston, an obstetrician-gynecologist, died on May 29 in a hospital there. He was 75.

Doctor Lewis, at one time Chief of Staff of the former McMillan Hospital in Charleston, was in general practice in Nellis (Boone County) for eight years before coming to Charleston. He was a former Boone County Health Officer.

A native of Elkhurst (Clay County), Doctor Lewis was graduated from West Virginia University and received his M. D. in 1931 from the Medical College of Virginia. He interned at Charleston General Hospital, and later did postgraduate work at New York Polyclinic Hospital and Margaret Hage Maternity Hospital.

A veteran of World War II, Doctor Lewis was an honorary member of the Kanawha Medical Society, the West Virginia State Medical Association and the American Medical Association, and was a member of the West Virginia Obstetrical and Gynecological Society.

Survivors include the widow; four sons, Montague Lewis of Oak Ridge, Tennessee; Timothy Lewis of Chantilly, Virginia, and C. E. Lewis, Jr., and Charles Lewis, both of Charleston; a brother, H. C. Lewis of Welch, and a sister, Mrs. Leta Wright of Charleston.

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# WVU Medical Center
# —News—

*Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.*

## Three Join Department Of Radiology

One associate and two assistant professors have joined the faculty of the Department of Radiology.

Joseph A. Horton, M. D., Associate Professor, comes to WVU from the University of Pennsylvania where he served on the faculty for one year. Prior to that he was a postdoctoral fellow in neuroradiology and chemistry at the University of Pittsburgh and a staff physician at Presbyterian University Hospital. A graduate of Massachusetts Institute of Technology, he received his medical degree from Tulane University.

Amelia J. Cardo, M. D., is a graduate of Georgian Court College, Lakewood, New Jersey, and the New Jersey Medical School. She completed her postgraduate training in radiology at WVU.

Mohammad R. Radi, M. D., is a graduate of the University of Tabriz Medical School in Iran and took postgraduate study in that country and at affiliated hospitals of Wayne State University in Detroit. He comes to WVU from Richmond where he completed a one-year fellowship in neuroradiology at the Medical College of Virginia.

## Help For Chronic Pain Sought In Computerized Study

A solution to the problem of chronic, disabling pain and an understanding of its physical, psychological, social, cultural and economic facets is being sought at WVU Medical Center.

A computerized study which analyzes responses by 200 patients to 100 questions may provide many answers to this problem which affects 35 million Americans.

Robert Bettinger, M. D., Assistant Professor of Anesthesiology and Director of the WVU Pain Clinic, reported on the study at the June meeting of the West Virginia State Society of Anesthesiologists held at Lakeview Inn in Morgantown. His was one of eight papers presented.

## Student One Of 11 In U. S. Chosen For Study

An interest in the mechanism of action of vitamin K won a WVU medical student support from the Nutritional Research Foundation to conduct studies this summer at the WVU Medical Center.

Victor Lee of Oak Hill is one of only 11 medical students from throughout the United States whose project proposals were chosen by the foundation, and the first at WVU.

Vitamin K is required for the blood coagulation process to occur. The proteins that function in this process are not well characterized. Lee is particularly interested in one of these proteins—a specific calcium-binding one.

Lee, who has completed his first year, is the son of Dr. and Mrs. Chuan-Hsiang Lee of Oak Hill.

## Physicians Present Papers In San Diego, Jamaica

Dr. Romeo Y. Lim, Clinical Associate Professor of Otolaryngology, WVU Charleston Division, and an attending staff physician at The Eye and Ear Clinic of Charleston, was the guest speaker at the recent annual meeting of the Society of Philippine Surgeons of America in San Diego. His topics were "Methods of Reconstructing the Cervical Esophagus" and "Management of Face and Neck Trauma."

Charles A. White, M. D., Chairman of the Department of Obstetrics and Gynecology, West Virginia School of Medicine, was guest speaker recently at a meeting of the Brabham Society in Kingston, Jamaica. The Society, a group of Jamaican obstetricians and gynecologists, met in conjunction with a conference of the West Indies Section, District IV of the American College of Obstetricians and Gynecologists.

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# Third-Party News, Views and Program Concerns

## Physician Liability Possible In Abnormal Births

In two companion cases, the New York State Court of Appeals has ruled that a physician may be held liable for the monetary loss sustained by the parents if the physician negligently fails to inform a couple of the risks faced in bearing an abnormal child. Should a patient then give birth to an abnormal child, the doctor may be required to pay the lifelong special costs of caring for it. Aetna Life and Casualty has taken note of these cases, and provided the following material.

### The Implications

The court's ruling in New York implies that a physician should not act as an implacable judge of the best course of action in pregnancies where risk of abnormal birth is a factor. Ultimately, the patient has the right of final decision. It thus becomes a doctor's duty to inform and advise: in short, *counsel* the patient so that she can make an intelligent decision after consideration of the available options. (While this ruling has the force of law only in New York State at present, other states may look to this case as a precedent.)

### Function of Genetic Counseling

Genetic counseling aids in determining the mathematical odds of producing a child without genetic defects. Eighty-five per cent of congenital disorders are not subject to prenatal diagnosis, and risks must be inferred from circumstances and medical history. Detection of the remaining disorders is possible through various tests, including amniography, ultrasound, amnioscopy, placental aspiration, maternal blood screening and amniocentesis.

Patients generally considered to be at risk, and for whom genetic counseling is recommended by the American College of Obstetricians and Gynecologists, are: women over age 35; couples who have already given birth to a child with genetic disease; couples with a family medical history of genetic disease; and couples from ethnic or racial groups at high risk for genetic disease.

### Counseling Suggestions

(1) Involve both parents in your discussions; (2) obtain personal and family history of patient and spouse with regard to genetic abnormality; (3) advise patients of probabilities regarding age-related abnormalities; (4) advise patients as to the availability of diagnostic tests, such as chromosomal analysis and amniocentesis, and discuss the nature of the information to be obtained, the procedure, and the risks; (5) thoroughly discuss all test results with patients, making sure they understand the implications of the findings (i.e., the specific probabilities of genetic abnormality).

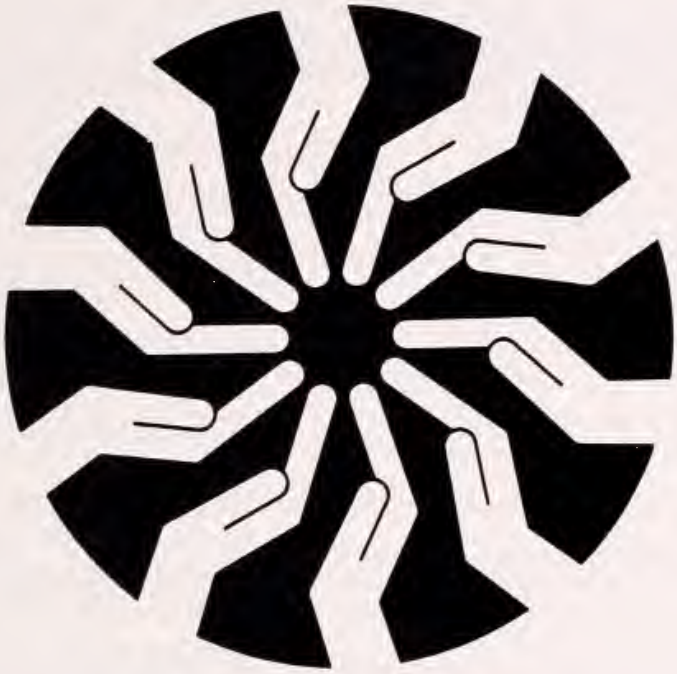
(6) In cases where increased risk is a factor, make patients aware of the available options, including the abortion of the fetus, and/or techniques for avoiding future pregnancies; (7) the parents should be made aware that the final decision to become pregnant or to have an abortion rests with them; (8) document all visits and conversations, noting matters discussed, information provided, and any decision reached; and (9) never abandon a patient. If a conflict arises whereby the physician wishes to dissolve the relationship with his patient, he should refer the patient to other physicians and allow that patient reasonable time to select another doctor.

## Yellow No. 5 To Be Identified On Food, Drug Labels

The Food and Drug Administration will require all foods and drugs that contain Yellow No. 5 (tartrazine), the most widely used color additive, to identify the color by name in the ingredient list on the label.

This will enable people allergic to Yellow No. 5 to avoid it. As many as 100,000 people in the United States may be allergic to Yellow No. 5. Most of these people also are allergic to aspirin.

For foods, the labeling requirement applies to all products shipped in interstate commerce after July 1, 1981. Drugs must list Yellow No. 5 on the label after June 26, 1980.



# 1929-1979

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# County Societies

## CENTRAL WEST VIRGINIA

Dr. Stanley R. Shane of Morgantown was the guest speaker for the meeting of the Central West Virginia Medical Society held on April 26 at the Dearfield Country Club near Weston.

Doctor Shane, Professor of Medicine at West Virginia University Medical Center, discussed problems of hypertension.

The Secretary, Dr. Joseph B. Reed of Buckhannon, reported on the progress of applications for the fluoridation of the public water supplies in Sutton, Gassaway, Weston and Burnsville.

Handling of complaints was discussed. It was decided that notarized letters of complaint should be requested from persons making complaints, with the letter addressed to the President. — Joseph B. Reed, M. D., Secretary.

* * *

## CABELL

Doctor John D. Harrah of Huntington was the speaker for the meeting of the Cabell County Medical Society on May 10 at the Gateway Inn in Barboursville.

Doctor Harrah, Associate Professor of Surgery and Chief, Division of Thoracic and Cardiovascular Surgery, Marshall University School of Medicine, spoke on the history and development of coronary artery bypass surgery. A portion of his discussion was a statistical review of the frequency of cardiovascular diseases, including stroke and coronary artery disease.

Dr. Albert C. Esposito of Huntington gave a report concerning the Blue Cross-Blue Shield Board, and explained the advantages to the Sociey of consumer advisory counselors for the State Blue Gross-Blue Shield Board. Following discussion, the Society voted to go on record as endorsing the concept of consumer advisory counselors for the State Blue Shield-Blue Cross Board.—Charles E. Turner, M. D., Secretary.

* * *

## McDOWELL

The McDowell County Medical Society met on May 9 at Stevens Clinic Hospital in Welch.

Dr. Bruce L. Lasker of Bluefield, an obstetrician-gynecologist, was the guest speaker. He discussed vaginitis or leukorrhea, amenorrhea, abnormal vaginal bleeding, and pelvic pain.

(Continued on page xxiv)

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Registrants are responsible for their own lodging and their choice of hotel or motel. A block of rooms is available on a first-come, first-served basis at Wilson Lodge in Oglebay Park, and you may contact Justina Gabbert at 242-3000.

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# Update '79

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# Book Review

**PHYSICIAN'S HANDBOOK, 19th Edition** —Marcus A. Krupp, M. D.; Norman J. Sweet, M. D.; Ernest Jawetz, M. D., Ph. D.; Edward G. Biglieri, M. D.; Robert L. Roe, M. D.; and Carlos A. Camargo, M. D. Lange Medical Publications, Los Altos, California 94022 758 Pages. 1979. Price $9.

This is the 19th Edition of the Physician's Handbook, which is another excellent Lange Medical publication. The laboratory and clinical information is concise and clear and should be available to all doctors. The only subsections not really updated are ultrasound, CAT scanning and the use of gadgetry in monitoring patients under anesthesia.

I highly recommend that the Physician's Handbook be placed where it is always available.—Stephen Mamick, M. D.

---

**A MILLION DOLLARS FOR YOUR HANGOVER**—Maxie C. Maultsby, Jr., M. D. Rational Self-Help Books, Lexington, Kentucky. Price $10.95.

This illustrated guide for the New Self-Help Alcoholic Treatment Method is a book for both health professionals and alcoholics themselves and their relatives and friends.

The book points out that there are more than 13 million American alcoholics, that each year another 200,000 alcoholic drinkers become alcoholics, and that another 50 to 60 million American lives are influenced harmfully by these alcoholics, at a cost of between 10 and 15 billion dollars yearly.

The book lists three steps in the treatment method: (1) stop alcohol drinking, (2) medical-

(Continued on page xxiv)


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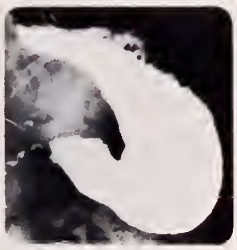
10 mg. capsules, 20 mg. tablets,
10 mg./5 ml. syrup, 10 mg./ml. injection

## helps control abnormal motor activity with minimal anticholinergic side effects†

## Demonstrated smooth muscle relaxant activity.

In this double-blind study, twenty patients having G.I. series and exhibiting spasm were randomly selected to receive either 2 cc. of Bentyl or sodium chloride intramuscularly. Ten minutes after the injection another radiograph was taken . . .

. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.



Pylorospasm has almost totally blocked passage of barium meal.

Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

*"The correlation of spasm relief and drug given was excellent."*

*This drug has been classified "probably" effective in treating functional bowel/irritable bowel syndrome.

†See Warnings, Precautions and Adverse Reactions.

See following page for prescribing information.

Reference:
King, J.C. and Starkman, N.M.: Evaluation of an antispasmodic. Double-blind evaluation to control gastrointestinal spasms occurring during radiographic examination. A preliminary report. Western Med. 5:356-358, 1964.

**Merrell**

8-4420 (Y736A) MNR-804

**Bentyl®**

**(dicyclomine hydrochloride USP)**

Capsules, Tablets, Syrup, Injection

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS
Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the following indications as "probably" effective
For the treatment of functional bowel/irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
THESE FUNCTIONAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS
For use in the treatment of infant colic (syrup).
Final classification of the less-than-effective indications requires further investigation.

CONTRAINDICATIONS Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus; intestinal atony of the elderly or debilitated patient, unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis; toxic megacolon complicating ulcerative colitis; myasthenia gravis WARNINGS In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug PRECAUTIONS Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy Use with caution in patients with Autonomic neuropathy Hepatic or renal disease Ulcerative colitis Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon. Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension. Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
Do not rely on the use of the drug in the presence of complication of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate With overdosage, a curare-like action may occur ADVERSE REACTIONS Anticholinergics/antispasmodics produce certain effects which may be physiologic or toxic depending upon the individual patient's response The physician must delineate these Adverse reactions may include xerostomia, urinary hesitancy and retention; blurred vision and tachycardia, palpitations; mydriasis, cycloplegia; increased ocular tension; loss of taste; headache, nervousness; drowsiness; weakness; dizziness; insomnia, nausea, vomiting, impotence, suppression of lactation, constipation, bloated feeling; severe allergic reaction or drug idiosyncrasies including anaphylaxis, urticaria and other dermal manifestations; some degree of mental confusion and/or excitement, especially in elderly persons; and decreased sweating With the injectable form there may be a temporary sensation of lightheadedness and occasionally local irritation. DOSAGE AND ADMINISTRATION Dosage must be adjusted to individual patient's needs
*Usual Dosage* Bentyl 10 mg capsule and syrup *Adults*: 1 or 2 capsules or teaspoonfuls syrup three or four times daily *Children* 1 capsule or teaspoonful syrup three or four times daily *Infants*: ½ teaspoonful syrup three or four times daily. (May be diluted with equal volume of water.) Bentyl 20 mg *Adults*: 1 tablet three or four times daily Bentyl Injection. *Adults*: 2 ml. (20 mg.) every four to six hours intramuscularly only NOT FOR INTRAVENOUS USE MANAGEMENT OF OVERDOSE The signs and symptoms of overdose are headache, nausea, vomiting, blurred vision, dilated pupils, hot, dry skin, dizziness, dryness of the mouth, difficulty in swallowing, CNS stimulation. Treatment should consist of gastric lavage, emetics, and activated charcoal. Barbiturates may be used either orally or intramuscularly for sedation but they should not be used if Bentyl with Phenobarbital has been ingested. If indicated, parenteral cholinergic agents such as Urecholine* (bethanecol chloride USP) should be used.
Product Information as of October, 1978

Injectable dosage forms manufactured by CONNAUGHT LABORATORIES, INC., Swiftwater, Pennsylvania 18370 or TAYLOR PHARMACAL COMPANY, Decatur, Illinois 62525 for MERRELL-NATIONAL LABORATORIES, Division of Richardson-Merrell Inc., Cincinnati, Ohio 45215, U S A.

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*BOOK REVIEW—Continued from page xxii*

ly treat the alcohol withdrawal, and (3) medically treat the alcohol-induced illness.

It points out that the main difficulty is habitual drinking to solve personal problems, and that the person must learn to solve personal problems without alcohol.

The self-help treatment method is based upon psychosomatic learning theory of human behavior, and is used by health professionals who practice Rational Behavior Therapy as opposed to only traditional psychotherapy.

Rational Behavior Therapy, founded by Doctor Maultsby, is an extension of Rational Emotive Therapy, founded by Albert Ellis, Ph. D. It deals with the three main groups of habitual human behaviors: cognitive (perceiving and thinking), emotive (emotional feeling), and physical (voluntary action).

It is pointed out that the solution is behavorial —re-education in the three drinking-relative behaviors.

For additional information about Rational Behavior Therapy and the three-week courses offered for professionals and others, one can write to Doctor Maultsby at the University of Kentucky Medical School, Lexington 40502.—Robert J. Wilkinson, Jr., M. D.

*COUNTY SOCIETIES—continued*

Dr. Ross M. Patton of Gary outlined a planned program of continuing medical education in McDowell County to be provided through West Virginia University and Charleston Area Medical Center. The educational programs will be approved for Category 1 of the Physician's Recognition Award of the American Medical Association. Eight monthly programs per year are planned.—Muthusami Kuppusami, M. D., Secretary.

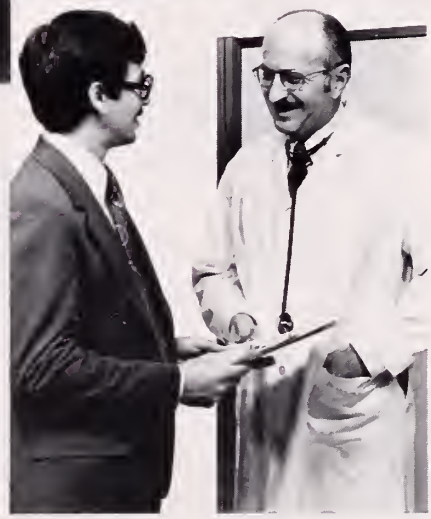
## Hyperactive Children Usually Adjust To Adult Life

What happens to that hyperactive child when he or she grows up?

The adolescent or young adult still may have some problems but for the most part the child who had such a rough time in school learns to cope reasonably well with the adult world, according to a research report in a recent issue of Archives of General Psychiatry.

A Montreal research team tracked down a group of children who had been classified as hyperactive some 10 to 13 years earlier, when the youngsters ranged from age 6 to age 13.

# Working together is the best medicine.



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# WVU Medical Center
# –News–

*Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.*

## Four New Faculty Members In Anesthesiology

Four new faculty members have joined the Department of Anesthesiology.

Richard W. Eller, M. D., Professor and Director of Clinical Anesthesiology, is a graduate of Temple University Medical School and its anesthesiology residency program.

Formerly Professor of Clinical Anesthesiology at Temple, he has been coordinating the Advance Life Support Program in Pennsylvania for the American Heart Association and was Director of the Cardiopulmonary Resuscitation Program for the Pennsylvania Society of Anesthesiologists.

Charles Koliner, M. D., Associate Professor and Director of the Intensive Care Unit, is a graduate of the Air Force Academy and Columbia University College of Physicians and Surgeons, and received a master's degree in epidemiology at McGill University of Montreal.

As a Robert Wood Johnson Fellow he received his training in internal, respiratory and critical care medicine at the Royal Victoria Hospital in Montreal. He later served as Director of the Surgical ICU at that hospital.

His area of interest has been the socioeconomic problems of the acute care patient.

David Graf, M. D., Assistant Professor, is a graduate of Albany Medical College and received his residency training at Syracuse Upstate Medical Center.

He completed a fellowship in critical care and anesthesiology at the University of Pittsburgh and has been in private practice in the Pittsburgh area.

Lawrence Lavine, M. D., Instructor, is a graduate of the University of Illinois and George Washington University Medical School and has a master's degree in biochemistry from the University of Wisconsin.

## Behavioral Medicine Faculty Increases By Six

Two associate and four assistant professors have joined the faculty of the Department of Behavioral Medicine and Psychiatry.

William H. Nelson, M. D., Associate Professor, is a graduate of Duke University and the WVU School of Medicine. He received his postgraduate training in psychiatry at the University of Connecticut Affiliated Hospitals.

He comes to WVU from New Canaan, Connecticut, where he was a staff psychiatrist at Silver Hill Foundation and in private practice.

Robert E. Pawlicki, M. D., Associate Professor, is a graduate of the University of Hartford (Connecticut). He received his master's degree from the University of Missouri and a doctorate in psychology from York University of Toronto, Canada.

A former faculty member at the State University of New York at Oswego, he also taught at the University of Winnipeg.

Drs. Paul L. Clausell, David M. Morgan and John G. Tellers are graduates of the WVU School of Medicine. They took postgraduate training in the Department of Behavioral Medicine and Psychiatry as did William G. Orr, M. D., a graduate of the University of Georgia and its medical college.

Doctor Tellers also completed a three-year residency in the WVU Department of Neurology.

Named an Instructor in the Department was Phyllis P. Nash, a graduate of the University of Kentucky, who received her master's degree in social work from WVU.

## Biochemist Edits Book

George P. Tryficates, Associate Profressor of Biochemistry, is the Editor of a book, *Vitamin $B_6$—Metabolism and Role in Growth*, published this summer by Food and Nutrition Press, Inc. of Westport, Connecticut. He also wrote two of the book's chapters.

# Rx: Air Force Medicine

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# Third-Party News, Views and Program Concerns

## New HEW Chief Regarded As 'Team Player'

The President's sacking of Health, Education and Welfare Department Secretary Joseph Califano has generated speculation on "why" to the measure of tons of national newsprint. But after a terse *ave atque vale* to the deposed Secretary, more prosaic Washington observers have quickly turned to handicapping his successor, Patricia Roberts Harris.

The 55-year-old Harris, a lawyer, brings to HEW much of the same Lyndon Johnson "Fair Deal" outlook as Califano. She is regarded as more of a team player, but her prickly independence is reminiscent of her predecessor. She can be expected to support enthusiastically the Administration's goal at HEW, including the establishment of a separate Department of Education, a reorganization that Califano not so privately opposed to the discomfiture of the White House.

Harris hasn't been rated as one of the heavyweights of the Cabinet, perhaps because her Department ranks last in importance. Now she has her chance. Long active in the Democratic Party, she served two years as Ambassador to Luxembourg in 1965-67 and was later an Alternate Delegate to the United Nations. She was an attorney with the Justice Department in the early 1960s, and later became a successful private lawyer in a Washington, D. C., firm. She has been a director of some of the nation's largest corporations.

In the press brochure distributed at her news conference following announcement of her appointment to HEW, copies of news stories about Harris were included. They carried such headlines as "Forceful HUD Secretary is Turning Her Critics Around; Patricia Harris, HUD'S Velvet-Gloved Iron Hand; HUD Secretary Harris Steps Quickly Into The Fray; and Patricia Harris—The No-Nonsense Chief of HUD."

"Abrasive", "pugnacious", "spitfire" were some of the adjectives used in the articles to describe Harris. These apparently are descriptions with which she is comfortable.

As a "team player," Harris said nothing remotely controversial at the news conference. She has filled out and returned an inane White House questionnaire sent to all Cabinet members asking them to rate their subordinates on a variety of qualities. Califano had refused to honor the questionnaire.

But there is still a lot of head scratching in Washington. The Administration's two major health initiatives—hospital cost containment and the national health plan—are widely and strongly identified in the Congress with Califano. Harris has no expertise in health and no strong clout with the small but powerful "Old Boy" Democrat band of brothers in the Congress. And it will take her months to learn the ropes.

## Rights For House Staff

Interns, residents and other house staff who choose to organize formally should be able to avail themselves of the rights established for employees by the National Labor Relations Act, the American Medical Association has told the Congress.

Approval was urged of legislation granting house staff this right by William Mangold, Jr., M. D., Vice Chairman of the AMA's Council on Legislation. He said that to argue house staff are only "students" is to ignore the inherent duality of graduate medical education.

"Generally, an individual having the status of an employee is subject to supervision," said Doctor Mangold. "Employees receive compensation for their services, and their services are expected to have value to their employers. Employers are required to withhold federal and state income taxes and to pay Social Security taxes in connection with wages or salaries paid to employees. Each of the foregoing applies to the relationship that exists between employing institutions and interns and residents."

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- ☐ $30,000 MAJOR HOSPITAL PLAN
  Covers you and your family up to $30,000 per person
- ☐ HOSPITAL MONEY PLAN
  Pays you up to $100.00 per day when you or a member of your family is hospitalized
- ☐ LOW-COST LIFE INSURANCE
  In units of — $10,000 — $20,000 — $30,000 — $40,000 — $50,000
- ☐ $100,000 ACCIDENTAL DEATH & DISMEMBERMENT INSURANCE
  Around the clock protection — 24 hours a day . . . 365 days a year . . . worldwide
- ☐ OFFICE OVERHEAD DISABILITY POLICY
  Pays your office expense up to $3,500 per mo. while you are disabled
- ☐ A MILLION DOLLAR CATASTROPHE LIABILITY POLICY
  Covers: Malpractice — Home — Personal — Auto Liability

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# Obituaries

### WILLIAM V. WILKERSON, M. D.

Dr. William V. Wilkerson of Whitesville died on July 20 at his home. He was 82.

Until his retirement, Doctor Wilkerson served as Director of the Raleigh-Boone Medical Center at Whitesville. He was former Chief of Medicine at Coal Valley Hospital at Montgomery.

A native of Chelyan (Kanawha County), Doctor Wilkerson was graduated from Ohio University and earned a master's degree from Cornell University. He received his M. D. degree in 1927 from Johns Hopkins University.

Doctor Wilkerson was a former member, and President. of the Fayette County Medical Society, and was a former Chairman of the State Medical Association's Section on Internal Medicine.

A veteran of World War I. he was a Fellow of the American College of Physicians.

Doctor Wilkerson was an honorary member of the Boone County Medical Society, the West Virginia State Medical Association, and the American Medical Association.

Survivors include three sons, Thomas D. Wilkerson of St. Albans, Robert G. Wilkerson of Herkimer, N. Y., and Dr. James E. Wilkerson of Tallmadge, Ohio, and a sister, Mrs. Oleita Noel of Bridgeton, New Jersey.

* * *

### GUY F. HOLLIFIELD, M. D.

Dr. Guy F. Hollifield of Beckley died on July 14 in a hospital there. He was 57.

Doctor Hollifield was Director of Medicine at Beckley Appalachian Regional Hospital, and Associate Dean of Clinical Affairs at the Beckley campus of Marshall University Medical School.

He was Medical Director of the Outpatient Department of the University of Virginia Hospital in 1955-56, Associate Professor of Medicine at the University of Virginia from 1960 to 1966, and served as Chairman of the Medical Department of Chicago (Illinois) Wesley Memorial Hospital from 1966 to 1973.

A native of Courtland, Virginia, Doctor Hollifield was graduated from Virginia Military Institue and received his M. D. degree in 1954 from the University of Virginia.

He was a member of the Raleigh County Medical Society, the West Virginia State Medical Association, the Association's Committee on

(Continued On Page xx)

# Book Review

**PRINCIPLES AND MANAGEMENT OF UROLOGIC CANCER** — Nasser Javadpour, M. D. The Williams and Wilkins Co., Baltimore, Maryland 21202. 533 pages. 1979. Price $49.95.

This is a new publication, involving 21 contributing authors, which provides a reference source for current diagnosis and management of genitourinary malignancies. The book is designed primarily for urologists, oncologists and radiation therapists, and for residents being trained in these specialties. It may also be used by other physicians desiring concise reference information on a particular topic in genitourinary cancer. The chapters are oriented toward the most current modalities of disgnosis and therapy. Illustrations are abundant, detailed, and descriptive. For those interested in greater detail on each topic, an excellent bibliography is provided at the conclusion of each chapter.

The initial chapters of this publication are devoted to a thorough review of epidemiology and carcinogenesis, and are followed by a chapter which highlights current concepts in genitourinary pathology that have clinical importance. The radiology section describes all recent advances in genitourinary radiology and their current diagnostic application. A significant portion of this section is devoted to indications for and potential value of ultrasonography, computerized tomography, angiography, lymphangiography, and nuclear scanning. These tests provide a logical approach to the diagnosis and determination of extent of malignancy, while limiting the use of expensive diagnostic studies to those which yield the most information in each clinical situation.

The radiology section is followed by a discussion of tumor markers in genitourinary malignancy. The advent of biologic tumor markers has been a significant achievement that has already provided great benefit to patients with testis tumors. A patient with a testis tumor who has elevated serum alphafetoprotein (AFP) or $\beta$-human chorionic gonadotropin ($\beta$-HCG) tumor markers by radioimmunoassay can be followed accurately after treatment. Successful eradication of tumor will reduce the serum marker levels to normal, while continued monitoring of serum markers provides the earliest indication of relapse. The use of biologic tumor markers

(Continued On Page xx)

...in the functional bowel/irritable bowel syndrome*

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. . . Bentyl produced definite relaxation in 8 of 10 patients. The sodium chloride produced relaxation in only 3 of 10. No side effects occurred in either group of patients.

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Barium meal beginning to pass 10 minutes after intramuscular injection of 20 mg. Bentyl.

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*This drug has been classified "probably" effective in treating functional bowel/irritable bowel syndrome.

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For use in the treatment of infant colic (syrup).
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CONTRAINDICATIONS: Obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis); paralytic ileus, intestinal atony of the elderly or debilitated patient; unstable cardiovascular status in acute hemorrhage, severe ulcerative colitis; toxic megacolon complicating ulcerative colitis, myasthenia gravis. WARNINGS: In the presence of a high environmental temperature, heat prostration can occur with drug use (fever and heat stroke due to decreased sweating). Diarrhea may be an early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy. In this instance treatment with this drug would be inappropriate and possibly harmful. Bentyl may produce drowsiness or blurred vision. In this event, the patient should be warned not to engage in activities requiring mental alertness such as operating a motor vehicle or other machinery or perform hazardous work while taking this drug. PRECAUTIONS: Although studies have failed to demonstrate adverse effects of dicyclomine hydrochloride in glaucoma or in patients with prostatic hypertrophy, it should be prescribed with caution in patients known to have or suspected of having glaucoma or prostatic hypertrophy. Use with caution in patients with: Autonomic neuropathy. Hepatic or renal disease. Ulcerative colitis. Large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon. Hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias, and hypertension. Hiatal hernia associated with reflux esophagitis since anticholinergic drugs may aggravate this condition.
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# County Societies

## CABELL

The Cabell County Medical Society met on June 14 at the Gateway Inn in Barboursville.

Dr. Lorraine J. Rubis, member of the Department of Surgery at Marshall University School of Medicine and a cardiovascular surgeon, discussed the history and development of pediatric cardiac surgery.

Drs. George J. Hill II and Colin M. Craythorne appealed for volunteer help from physicians for physical examinations of young boys and girls going to Boy Scout and Girl Scout camps, and for young men and women participating in high school athletics. — Charles E. Turner, M. D., Secretary.

*BOOK REVIEW—Continued*

coupled with improvements in chemotherapy has improved dramatically the survival of patients with this malignancy. Current studies on cell antigen markers in carcinoma of the bladder may also be of potential value in the future.

The next section of the book is devoted to current concepts in radiation therapy and chemotherapy of genitourinary cancer. It serves as a valuable reference on present use of chemotherapeutic agents. The publication also provides a well-written chapter on infection as it relates to patients with cancer and to surgical procedures in these patients. In addition, a special chapter deals with guidelines for the design of prospective clinical trials in genitourinary oncology. The final part of the book gives an organ-by-organ review of current diagnosis and therapy in genitourinary oncology.

In summary, this volume provides a well-organized composite of the most recent advances in management of genitourinary malignancy. It is a useful publication both as a primary teaching guide and as a reference source.—John A. Belis, M. D.

*OBITUARIES—Continued*

Medical Education and Hospitals, and the American Medical Association.

Survivors include three sons, Guy Hollifield, Jr., William Hollifield and James Hollifield, all of Charlottesville, Virginia; one sister, Mrs. Donald H. Alexander of Atlanta, and one brother, H. Graham Hollifield of Martinsville, Virginia.

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Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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# WVU Medical Center
# —News—

*Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.*

## Internal Medicine Residents Rate High In Tests

Internal medicine specialists trained at WVU rated among the best in the nation in recent board certification tests.

Robert H. Waldman, M. D., Chairman of the Department of Medicine, said the performance record shows the program is attracting first-rate young physicians, including some from out of state who will establish their practice in West Virginia.

WVU President Gene A. Budig said that "once again the quality of the academic program at the Medical Center has been recognized nationally."

"Our medical faculty members are strong, and their efforts are making an impressive imprint on the state of West Virginia," President Budig said.

Doctor Waldman noted that the six WVU residents who took the tests this spring "averaged in the 93rd percentile nationally. That would place them among the top 70 of any 1,000 who took the tests."

The percentile ranking is different from a grade of 93 on the test where a grade of 65 or 70 might be needed to pass. Since about 30 per cent of those taking the boards normally fail them, the 31st percentile and above would amount to a passing grade.

"There were no failures among our group, and there hasn't been one for several years," Doctor Waldman said. "We have a string of about 20 straight now going."

Doctor Waldman noted that the WVU three-year residency training program, which follows the four-year M. D. program, "is not tailored especially toward helping people get high grades on their boards."

"That can be done, I suppose, but such training would not be of special value in educating a first-class physician," he said.

At the same time, Doctor Waldman said that board scores "are about the only objective way" of evaluating the quality of a specialty training program.

## Funds Donated For Teaching Chair In Internal Medicine

Hazel L. Ruby of Morgantown, wife of the late J. W. Ruby, a prominent Morgantown industrialist, has provided funds to the West Virginia University Foundation, Inc., designed eventually to establish and endow a teaching chair in Internal Medicine at the WVU School of Medicine in memory of her husband.

The chair, to be known as the Dr. Edmund B. Flink Chair of Internal Medicine, is being named in recognition of the outstanding services of Doctor Flink, a Benedum Professor of Medicine at the WVU School of Medicine since 1960.

The endowment fund created by Mrs. Ruby will be used to supplement the salary and benefits of a nationally or internationally-recognized medical doctor or researcher in internal medicine who will teach or conduct research at WVU.

Doctor Flink commented, "it truly is a 'red letter day' when an outstanding and generous citizen, Hazel Ruby, demonstrates her pride in West Virginia University and the School of Medicine and is willing to invest in the future of the University."

## Research Recipients

Two WVU residents have been named Southern Medical Association Research Project Fund recipients for 1979-80. The physicians, their departments, and the titles of their projects are: Gregory S. Carter, M. D., Neurology, "Monoamine Oxidase and Central Dopaminergic Neurons," and Frank L. Schwartz, M. D., Pharmacology/Medicine, "Interaction of Androgen and Glucocorticoid Hormones with Common Intracellular Receptors in Various Tissues of the Male Rat."

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# Third-Party News, Views and Program Concerns

## Confidentiality of Computerized Patient Information

Guidelines for physicians to insure the appropriate protection of confidentiality of computerized medical information are included in a Special Report supplement to a recent issue of the American Medical Association publication, "Computers and Medicine."

"A physician should respect the patient's expectations of confidentiality concerning medical records that involve the patient's care and treatment, but the physician should also respect the patient's authorization to provide information from the medical record to those whom the pateint authorizes to inspect all or a part of it for legitimate purposes," said George J. Polli, Editor of "Computers and Medicine."

Discussing the subtle differences between privacy, confidentiality, and security, this new Special Report includes 22 specific guidelines to assist physicians and computer service organizations in maintaining information stored in computerized data bases.

"Computers and Medicine" is a bimonthly newsletter produced by the American Medical Association Computers in Medicine Program. The publication highlights new and innovative applications of computer technology in health care, including both clinical and administrative activities.

For a copy of the Special Report, a sample issue of "Computers and Medicine," and a cumulative index, write to: Computers and Medicine, American Medical Association, 535 N. Dearborn Street, Chicago, Illinois 60610.

## Darvon Manufacturer Distributes Consumer Leaflet

The manufacturer of Darvon, a widely-prescribed pain killer, has begun distributing a consumer leaflet warning of the hazards of taking the drug in excess or with alcoholic beverages or other drugs, the Food and Drug Administration announced.

The leaflet will be available to consumers from pharmacists when prescriptions for Darvon are filled.

The manufacturer, Eli Lilly and Company, Indianapolis, is distributing the leaflet on a voluntary basis.

The FDA is asking companies that sell Darvon under its generic name of propoxyphene or under other brand names to distribute similar consumer leaflets. Lilly makes at least 80 per cent of the propoxyphene used in the United States, selling it under such trade names as Darvon, Darvon Compound, Darvon-N and Darvocet-N.

At the same time, Lilly has agreed to add new warnings about Darvon to the information it provides to physicians.

## New Mailing Address For OCHAMPUS

A new mailing address for the Office of the Civilian Health and Medical Program of the Uniformed Services (OCHAMPUS) has become effective.

The new mailing address is OCHAMPUS, Aurora, CO 80045. It was formerly Denver, CO 80240.

The U. S. Postal Service has indicated that the old address will be honored for a limited time only, after which, letters will not be forwarded. CHAMPUS officials urge beneficiaries and others corresponding with OCHAMPUS to use the new address for all future correspondence.

CHAMPUS claims should not be sent to the above adress. Claims should continue to be sent to the CHAMPUS contractor who processes claims for the area where the medical care was received. Information about these addresses can be obtained from the CHAMPUS advisor at a uniformed service medical facility or by writing to OCHAMPUS.

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# Obituaries

### VIRGIL A. DEASON, M. D.

Dr. Virgil A. Deason of Logan died on August 4 in a Huntington hospital. He was 83.

The oldest member of the staff at Logan General Hospital, Doctor Deason was a former Logan County Health Officer.

He was a former Vice President and Secretary of the Logan County Medical Society.

A veteran of World War I, Doctor Deason was a native of Tuscaloosa, Alabama.

He was graduated from the University of Alabama and received his M. D. degree in 1927 from the University of Louisville. He interned at Hillman Hospital in Birmingham, Alabama, and practiced in Union Springs, Alabama, before going to Logan.

Doctor Deason was a member of the Logan County Medical Society, West Virginia State Medical Association and West Virginia Chapter, American Academy of Family Physicians.

Survivors include the widow; a son, Thomas J. Deason of Columbia, South Carolina; and a sister, Mrs. Lenore Brewster of Northport, Alabama.


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**PRECAUTIONS:** Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication.
Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

**ADVERSE REACTIONS:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued

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Product Information as of September, 1977

U.S. Patent 2,985,558

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# Resolutions

*Editor's Note*: Here are the resolutions, in the form in which they finally were approved, that were adopted at the second and final session of the House of Delegates during the West Virginia State Medical Association's 112th Annual Meeting at the Greenbrier in White Sulphur Springs August 22-25:

*Resolution No. 1*—Medical Practice Act—By The Kanawha Medical Society.

WHEREAS, The interests of patients and physicians are best served by appropriate and efficient medical disciplinary procedures; and

WHEREAS, At a time when medical discipline generally is receiving increased attention by legislators and the public generally, it is desirable for the West Virginia State Medical Association to sponsor its own appropriate legislation on this matter; and

WHEREAS, Physicians with impaired health might be unable to give optimal medical care to their patients; and

WHEREAS, Often an accompanying tragic and needless waste of professional service might result; and

WHEREAS, The present Medical Practice Act is seriously outdated and is a patchwork of amendments adopted since its inception:

THEREFORE, BE IT RESOLVED, That the President of the West Virginia State Medical Association appoint at once an ad hoc committee composed of himself and other physicians of his choice which will begin an immediate review of the existing West Virginia Medical Practice Act; and

BE IT FURTHER RESOLVED, That the committee's work likewise include consideration of model legislation prepared by the Federation of State Medical Boards of the United States, Inc., the American Medical Association, and legislation enacted in other states; and

BT IT FURTHER RESOLVED, That the committee coordinate its work to the degree it considers appropriate with the Medical Licensing Board of West Virginia; and

BE IT FURTHER RESOLVED, That the committee develop comprehensive new legislative proposals embracing the Medical Practice Act in general, and the medical discipline and impaired physician areas in particular, for introduction during the 1980 regular session of the West Virginia Legislature or at the earliest possible date; and

BE IT FURTHER RESOLVED, That the committee submit bills it prepares to the Committee on Legislation and Council of the West Virginia State Medical Association; the Association's component societies, and the Medical Licensing Board of West Virginia for final review and comment before a formal introduction of such bills; and that the committee provide a detailed report of its activities to the Association House of Delegates at the first meeting of the House during the Association's 1980 Annual Meeting.

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*Resolution No. 2*—Nominations—By The Kanawha Medical Society.

WHEREAS, Openness is the order of the day in all facets of governmental and organizational meetings and conventions; and

WHEREAS, Open nominations, secret balloting and the principle of one person, one vote is universally accepted; and

WHEREAS, Some criticism has been leveled at the method used by the West Virginia State Medical Association in the nomination of officers; and

WHEREAS, there are many capable persons in the organization who do not have an opportunity to offer their services through the limited procedure now practiced;

THEREFORE, BE IT RESOLVED, That the House of Delegates instruct the Association's Committee on Constitution and By-Laws to draft an amendment which would mandate that the Committee on Nominations submit at least two names for each office in the Association except that of President and President Elect; and

BE IT FURTHER RESOLVED, That there be continued provisions for nominations from the floor; and

BE IT FURTHER RESOLVED, That this amendment be reported to the Council and House of Delegates for a vote no later than the 1980 Annual Meeting.

---

*Resolution No. 3*—Annual Meeting—By The Kanawha Medical Society.

WHEREAS, The expense to the West Virginia State Medical Association for the Annual Meeting at the Greenbrier is substantial; not only to the Association but to the individual members attending; and

WHEREAS, Every effort should be made to increase the attendance at these annual meetings; and

WHEREAS, There might be several other locations in the State of West Virginia that can conveniently accommodate the Annual State Meeting;

THEREFORE, BE IT RESOLVED, That the elected officials of the West Virginia State Medical Association, along with headquarters staff, immediately begin exploring possibilities for holding the annual meeting elsewhere, and report their findings to the Association's House of Delegates at its first meeting during the 1980 Annual Meeting.

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*Resolution No. 5*—Nutrition—By The Harrison County Medical Society (with initial thrust from the Tygart's Valley Medical Society).

WHEREAS, Many feel that Nutrition, as a part of the human experience, has lost its way; that processing of food can adulterate and reduce natural quality; that use of certain pesticides in food production can have harmful effects, and that food consumption which outstrips the need for nourishment has let to national problems of obesity, diabetes and other disorders; and

WHEREAS, There now is a consensus that the time has come to effect a reversal of some of the undesirable trends in nutrition, and to reestablish healthy life styles among Americans; and

WHEREAS, Activities in Nutrition—in teaching, research and patient care—are scattered through many departments and divisions at the university level;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association strongly endorse a proposal to establish an endowed Chair of Nutrition in the School of Medicine at West Virginia University to coordinate nutrition education at the undergraduate and graduate levels; to institute clinic and hospital consultations on patients with nutritional disorders including, but not limited to, obesity, heart disease, cancer and diabetes; and to undertake research in nutrition and disease.

---

*Resolution No. 4*, also offered by The Kanawha Medical Society, and calling for an evaluation program to establish that welfare recipients claiming physical or emotional disability are truly deserving of benefits, likewise was considered by the Committee. On motion by the Committee, which was approved by the House of Delegates, that resolution was referred back to the Kanawha Medical Society for further study and refinement of intent; for development of a fiscal note; and for establishment of fiscal responsibility for implementing the resolution.

## Necrology Report

The following is a list of West Virginia physicians whose deaths have been reported to the West Virginia State Medical Association during the past year:

**1978**

| | | |
|---|---|---|
| Aug. | 11—Albert L. Allen | Winchester, Kentucky |
| Aug. | 25—Marvin H. Porterfield | Martinsburg |
| Aug. | 26—O. H. Bobbitt | St. Petersburg, Florida |
| Sept. | 10—Wallace B. Murphy | Grafton |
| Oct. | 27—Thomas M. Howes | Morgantown |
| Nov. | 1—Arthur K. Lampton | East Bank |
| Nov. | 3—F. R. Whittlesey | Morgantown |
| Dec. | 4—Charles S. Harrison | Clarksburg |
| Dec. | 6—Clyde A. Smith | Beckley |

**1979**

| | | |
|---|---|---|
| Jan. | 1—Thomas C. Sims | Smithers |
| Jan. | 16—Florien Vaughn | Mullens |
| Jan. | 22—William B. Blake, Jr. | Huntington |
| Jan. | 27—Joseph C. Ford | St. Petersburg, Florida |
| Jan. | 30—James E. Wise | Follansbee |
| Feb. | 3—Raymond M. Sloan | Huntington |
| Feb. | 3—Paul E. Walker | Crystal River, Florida |
| Feb. | 10—Davis William Ritter | Hinton |
| Feb. | 28—Frank R. Maskrey | Wheeling |
| Apr. | 7—William E. Irons | Lewisburg |
| Apr. | 15—W. F. Work | Charleston |
| Apr. | 17—J. G. Thoner | Wheeling |
| Apr. | 20—Joseph Horsham | Charleston |
| May | 12—E. D. Staats | Charleston |
| May | 15—W. H. Rardin | Beckley |
| May | 29—Clarence E. Lewis | Charleston |
| June | 1—Daniel D. Upthegrove | Charleston |
| July | 14—Guy F. Hollifield | Beckley |
| July | 20—W. V. Wilkerson | Whitesville |
| Aug. | 4—Virgil A. Deason | Logan |

Respectfully submitted,

CHARLES R. LEWIS,
*Executive Secretary*

August 22, 1979

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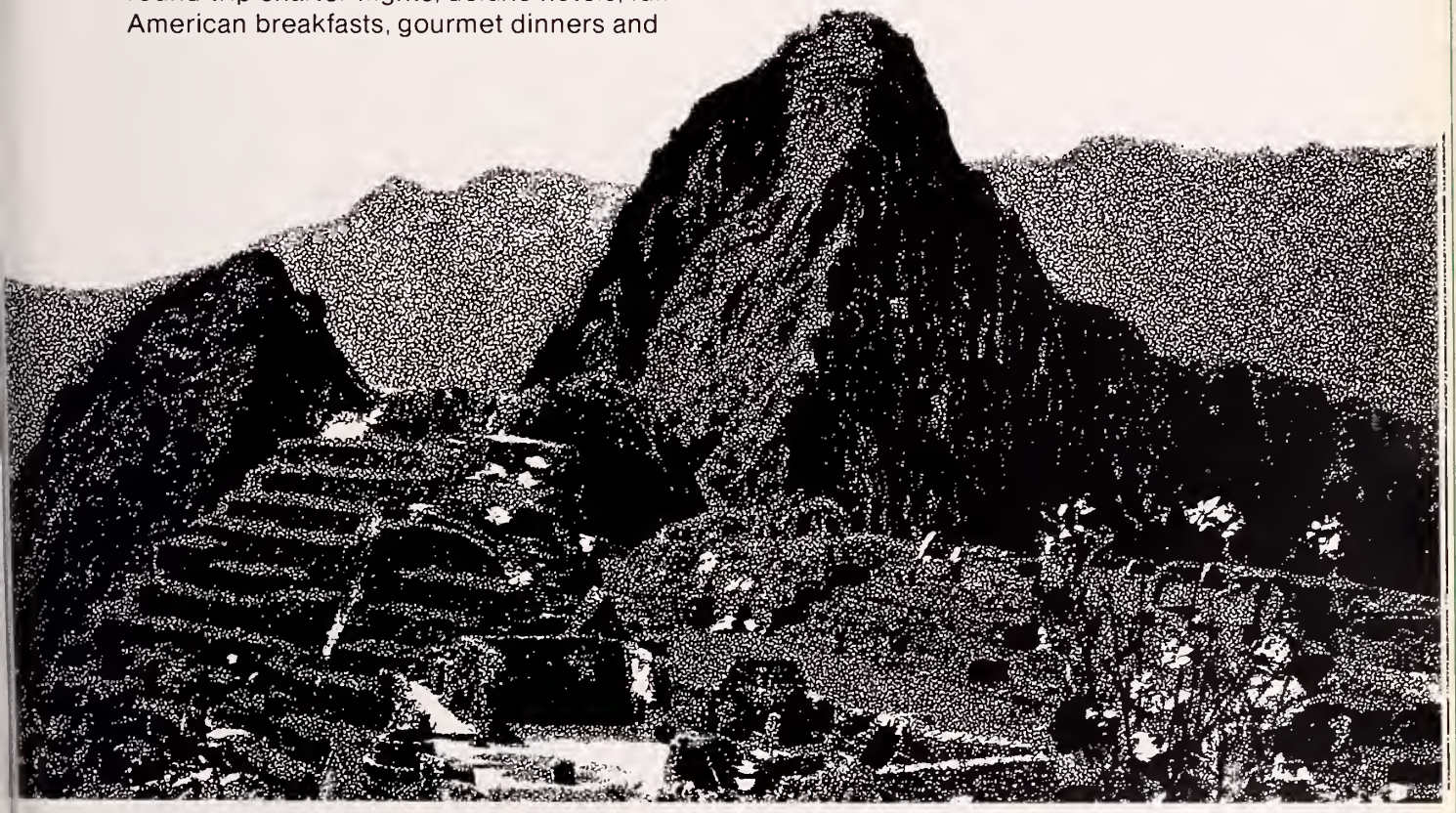

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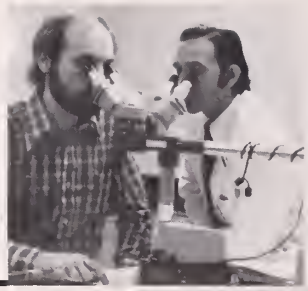
# WVU Medical Center —News—



*Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.*

## Mass Spectrometry Facility To Be Acquired

A federal grant from the National Institute of General Medical Sciences will provide the primary funding for a Mass Spectrometry Facility now being planned for WVU Medical Center.

The facility, which will require $200,000 worth of instrumentation, will be the only one of its kind in the WVU system. It will allow for qualitative and quantitative analysis of a wide variety of compounds encountered in the basic science research programs at the Medical Center such as products of enzyme reactions and drugs and various toxic substances and their metabolites.

A mass spectrometer is an analytical instrument which identifies a substance by fragmenting it and sorting the resulting stream of electrified particles (ions) according to their mass. Each substance produces a characteristic pattern of ions when fragmented, and this pattern, like that of a fingerprint, can be used for identification.

The acquisition of the equipment will result in the saving of substantial time and money by WVU researchers, according to Dr. Mary J. Wimmer, Assistant Professor of Biochemistry and facility director. Doctor Wimmer said researchers must now send many of their experimental samples to out-of-state facilities for analysis.

## Department Of Medicine Faculty Additions

Drs. Eric P. Brestel and Andrew P. Matragano have been named Assistant Professors in the Department of Medicine.

Doctor Brestel, Section of Allergy and Clinical Immunology, is a native of Clarksburg. He is a graduate of Florida Atlantic University and the University of Florida College of Medicine.

He completed his training in internal medicine, allergy, clinical immunology and rheumatology at the Methodist Hospital in Dallas, Texas, and at the University of Florida, where he was the recipient of an Allergy Foundation of America research fellowship. He is a Diplomate of the American Board of Internal Medicine.

He has carried out basic and clinical research on the causes of allergic diseases and has contributed five chapters to two textbooks on clinical immunology which have been published this year.

Doctor Matragano, Section of Pulmonary Medicine, is a graduate of St. Bonaventure University and received his medical degree from State University of New York at Stony Brook.

He served his internship and residency in internal medicine at Harlem Hospital, an affiliate of the College of Physicians and Surgeons of Columbia University.

During the past two years he has been a postgraduate fellow in pulmonary medicine at Harlem Hospital.

A candidate for membership in the American College of Physicians, he is a member of the American Thoracic Society.

## Pathology Department Names Three To Staff

One professor and two associate professors have been named to the faculty of the Department of Pathology.

Dr. Richard M. Iammarino, Professor and Chief of the Clinical Pathology Section, comes to WVU from the University of Pittsburgh where he had been a member of the faculty since 1963.

Dr. William W. L. Chang received his medical degree from National Taiwan University, his master's in pathology from Ohio State University, and a doctorate in anatomy from McGill University of Montreal. He had been on the faculty of Mount Sinai School of Medicine of the City University of New York since 1970.

Dr. William R. Nelson is former Associate Director of Biochemistry at the Michael Reese Medical Center in Chicago. He is a Diplomate of the American Board of Clinical Chemistry.

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# Third-Party News, Views and Program Concerns

## Compensation Fund Revises Services Invoice Form

The State Workmen's Compensation Fund has revised, as of September 26, its WC-400 Services Invoice. The new forms are available for distribution to all providers upon a request directed to the Fund, P. O. Box 3151, Charleston 25332.

The size of the WC-400 has been reduced from 8½ x 14 inches to 8½ x 11 for easier handling and filing. Also, the billing form now is printed on carbon-backed paper, making it unnecessary for providers to insert carbon paper between its three copies.

Charges for drugs now should be listed in the same area as other itemized services, the Fund has explained. Providers are urged to read special instructions at the top of the itemized services section when billing for drugs.

The Fund also has asked that providers use old WC-400 forms until any supplies on hand have been depleted. The actual processing of medical bills has not been changed by the form revision.

## Labeling Of Oral Antidiabetic Drugs Disputed By AMA

A proposed rule for labeling oral hypoglycemic agents should be withdrawn, the American Medical Association said in a recent letter to the Food and Drug Administration. Basing its comment on recommendations of an advisory panel established by its Council on Scientific Affairs, the AMA said the rule "represents neither sound nor well-balanced medical or regulatory judgment" and urged immediate dialogue on revision of the proposal. The Association offered the "combined and individual expertise" of the advisory panel and other AMA resources to assist the FDA in re-evaluating and revising the rule.

The advisory panel was appointed early this year when the AMA council undertook a review of the controversial study of oral antidiabetic drugs begun in 1961 by the University Group Diabetes Program (UGDP). Recent publications and a statement by the American Diabetes Association have raised questions about the validity of he UGDP study. The AMA panel's "Guidelines for Hypoglycemic Treatment in the Maturity-Onset Type Diabetic" was to be submitted to the council last month.

In the letter to the FDA, the AMA said the proposed labeling "repeatedly raises the spectre of 'apparent increased cardiovascular hazard associated with oral hypoglycemic agents' and implies that these drugs are always contraindicated for use as the primary therapeutic agent." The implications "are wholly inappropriate given the fact that they are premised on a study undertaken over a decade ago that was never completed and whose protocols and published results have been the subject of serious scientific debate for years," the AMA said.

## New FDA Safety Standard For Mercury Lamps

The Food and Drug Administration recently established a safety standard to protect the public from ultraviolet radiation from damaged mercury vapor lamps.

Mercury vapor lamps, which usually emit a bluish-white light, are widely used to light large indoor areas such as gyms, sports arenas, factories and department stores. They also are used to light streets, parking areas, sports fields and driveways. More than 25 million of them are used in the United States.

The lamp consists of an inner tube containing mercury gas and an outer glass globe that absorbs most of the ultraviolet radiation given off by the gas. If the inner tube continues to operate when the outer glass is broken, the escaping ultraviolet radiation can cause eye injuries or skin burns when people are exposed to the lamps for extended periods.

Under the new standard, lamps intended for areas where people could be exposed for extended periods must shut off automatically within 15 minutes if the outer globe is broken.

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# Obituaries

### PAUL H. NITSCHKE, M. D.

Dr. Paul H. Nitschke, retired Beckley urologist, died on July 31 in a hospital there. He was 80.

Doctor Nitschke served at the Veterans Administration Medical Center in Topeka, Kansas, before going to the Beckley VA Center in 1957. He retired in June, 1978.

Surviving is the widow.

* * *

### VIRGIL L. CURRY, M. D.

Dr. Virgil L. (Jimmie) Curry of Mableton, Georgia, formerly of Marlinton, died on September 23 in Atlanta. He was 43.

Doctor Curry was a urologist.

Survivors include the widow; a son, Virgil L. Curry II, at home; two daughters, Laura Lee and Lucy Jane Curry, both at home; the mother, Mrs. May Curry of Marlinton; four brothers, Wilbur and Dale Curry, both of Marlinton; Arden J. Curry of Charleston, and Earl Curry of Washington, D. C., and six sisters, Mrs. Audry Murphy of Washington, D. C.; Mrs. Madeline Hayes of Vista, California; Mrs. Louise Kolhman of McLean, Virginia; Mrs. Helen Hammond of Fairmont, Mrs. Evelyn Morrison of Milwaukee, and Mrs. Carolyn Robertson of Richmond, Virginia.

* * *

### DONALD M. CLARK, M. D.

Word has been received by *The Journal* of the death on July 5 of Dr. Donald M. Clark, a former general practitioner (1964-72) with the Highlands Clinic in Williamson. He was 78.

Upon his retirement, Doctor Clark had gone to Petersborough, N. H. He was a former Medical Director at Phillips Academy in Andover, Massachusetts.

* * *

### GEORGE F. GRISINGER, JR., M. D.

Dr. George F. Grisinger, Jr., of Fort Lauderdale, Florida, formerly of Charleston, died on September 14 in Fort Lauderdale. He was 66.

Doctor Grisinger was the Senior Examiner for the Federal Aviation Administration in Fort Lauderdale, and was a U. S. Navy veteran of World War II.

He was the son of the late Dr. George F. Grisinger, Charleston gastroenterologist, with whom he was in practice before moving to Florida in 1950.

Doctor Grisinger was graduated from West Virginia University and received his M. D. degree in 1942 from the Jefferson Medical College of Philadelphia. He interned at the U. S. Naval Hospital in Portsmouth, Virginia, and did postgraduate work in electrocardiography at Michael Reese Hospital in Chicago.

He was a former member of the Kanawha Medical Society and the West Virginia State Medical Association.

Survivors include the widow; a son, George F. Grisinger III of Fort Lauderdale; two daughters, Mrs. Alexis Jo Kehm of Key Largo, Florida, and Mrs. Jeffrey Ann Eldridge of Patrick Air Force Base, Florida, and one brother, Gordon M. Grisinger of Jupiter, Florida.

* * *

### THOMAS M. KLUG, M. D.

Dr. Thomas M. Klug, general practitioner who had practiced all his life in Wheeling, died on September 14 in a hospital there. He was 84.

Doctor Klug was a former member of the staff of Ohio Valley Medical Center and Wheeling Hospital, retiring in January of this year.

He was graduated from West Virginia University and received his M. D. degree in 1922 from the University of Cincinnati.

Doctor Klug was an honorary member of the Ohio County Medical Society, the West Virginia State Medical Association and the American Medical Association.

Survivors include three daughters, Miss Mary Catherine Klug and Miss Yvonne Klug, both of Wheeling, and Mrs. John Ryff of Washington, D. C.; two sons, Dr. Thomas J. Klug of Harlingen, Texas, and Gerald M. Klug of Moundsville; and two sisters, Sister Mary Virginia Klug of Wheeling and Mrs. Otto Burkhart of Bellsville, Ohio.

* * *

### MELVYN D. WEST, M. D.

Dr. Melvyn D. West of Shepherdstown died on August 28 at his home. He was 37.

Doctor West was District 6 (Morgan, Berkeley counties) Health Officer and a member of the Board of Directors of the Berkeley County Mental Health Association.

He was an anesthesiologist at King's Daughters Hospital in Martinsburg for three years before

(Continued on next Page)

# County Societies

## CABELL

The Cabell County Medical Society met on September 13 at the Gateway Inn in Barboursville.

Dr. William S. Evans, Assistant Professor of Medicine at the University of Virginia, Charlottesville, was the guest speaker. He discussed the hormone, prolactin, in medical practice.

Dr. Charles E. Turner reported that the Department of Oral History at Marshall University desires to interview several senior members of the Society. The oral histories are expected to be helpful to Dr. Charles H. Moffat, MU history professor who will be writing the history of medicine in Cabell County beginning next January.

Dr. Jack Leckie reported on the malpractice insurance situation in West Virginia.—Charles E. Turner, M. D., Secretary.

* * *

## MARION

The Marion County Medical Society met on September 25 at the Fairmont Field Club.

Dr. Ray M. Kessel of Huntington, Chairman of the Department of Family Practice at Marshall University School of Medicine, was the guest speaker.—William L. Mossburg, M. D., Secretary.

* * *

## McDOWELL

Dr. Stanley R. Shane of Morgantown was guest speaker for the meeting of the McDowell County Medical Society on September 12 at Stevens Clinic Hospital in Welch.

Doctor Shane, Professor of Medicine and Chief, Section of Metabolism and Endocrinology at West Virginia University Medical Center, spoke on "Work-Up and Treatment of Hypertension."

The Society voted to endorse the construction of a nursing home in Welch as proposed by the Health Action Council.—Muthusami Kuppusami, M. D., Secretary.

* * *

## MONONGALIA

Dr. Stephen D. Ward of Wheeling was the guest speaker for the meeting of the Monongalia County Medical Society on September 4 in Morgantown at the Ramada Inn.

Doctor Ward, President of the State Medical Association, presented a talk on "Politics and Medicine, a Shotgun Wedding." He encouraged all Society members to become members of the American Medical Association, and also encouraged us to become more politically active and involved in the everyday affairs of medicine.

The Society approved a donation of $5,135.03 to buy equipment for physical therapy and occupational therapy for the new North Elementary School.

Dr. Ralph W. Ryan presented several resolutions which had been discussed and acted upon at the Annual Meeting of the State Medical Association in August.——Wilbur Z. Sine, M. D., Secretary.

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*OBITUARIES—continued*

opening a general practice in Shepherdstown in October, 1978.

A native of Lampasas, Texas, he was graduated from the University of Tennessee and received his M. D. degree in 1969 from the University's Medical School.

He interned at Harkness Community Hospital in San Francisco and completed a residency at the University of Tennessee Memorial Research Hospital, in Knoxville.

Doctor West practiced in San Francisco before coming to West Virginia.

He was a member of the Jefferson County Medical Society and the West Virginia State Medical Association.

Survivors include the parents, Mr. and Mrs. K. H. West of Riviera, Texas; a son, Jeffrey B. West; a daughter, Laura Elizabeth West; a brother, K. Darrell West of San Antonio, Texas, and a sister, Karen West, also of San Antonio.

* * *

## OVID S. CAMPBELL, M. D.

Dr. Ovid S. Campbell of Grafton, a retired general practitioner, died on September 5 in a nursing home there. He was 97.

Doctor Campbell, who retired in 1971, also had practiced in Middlebourne (Tyler County) before going to Grafton.

A native of Volga (Barbour County), he was graduated from West Virginia University and received his M. D. degree in 1910 from the University of Maryland.

Doctor Campbell was an honorary member of the Tygart's Valley Medical Society, the West Virginia State Medical Association and the American Medical Association.

Surviving are several nieces and nephews.

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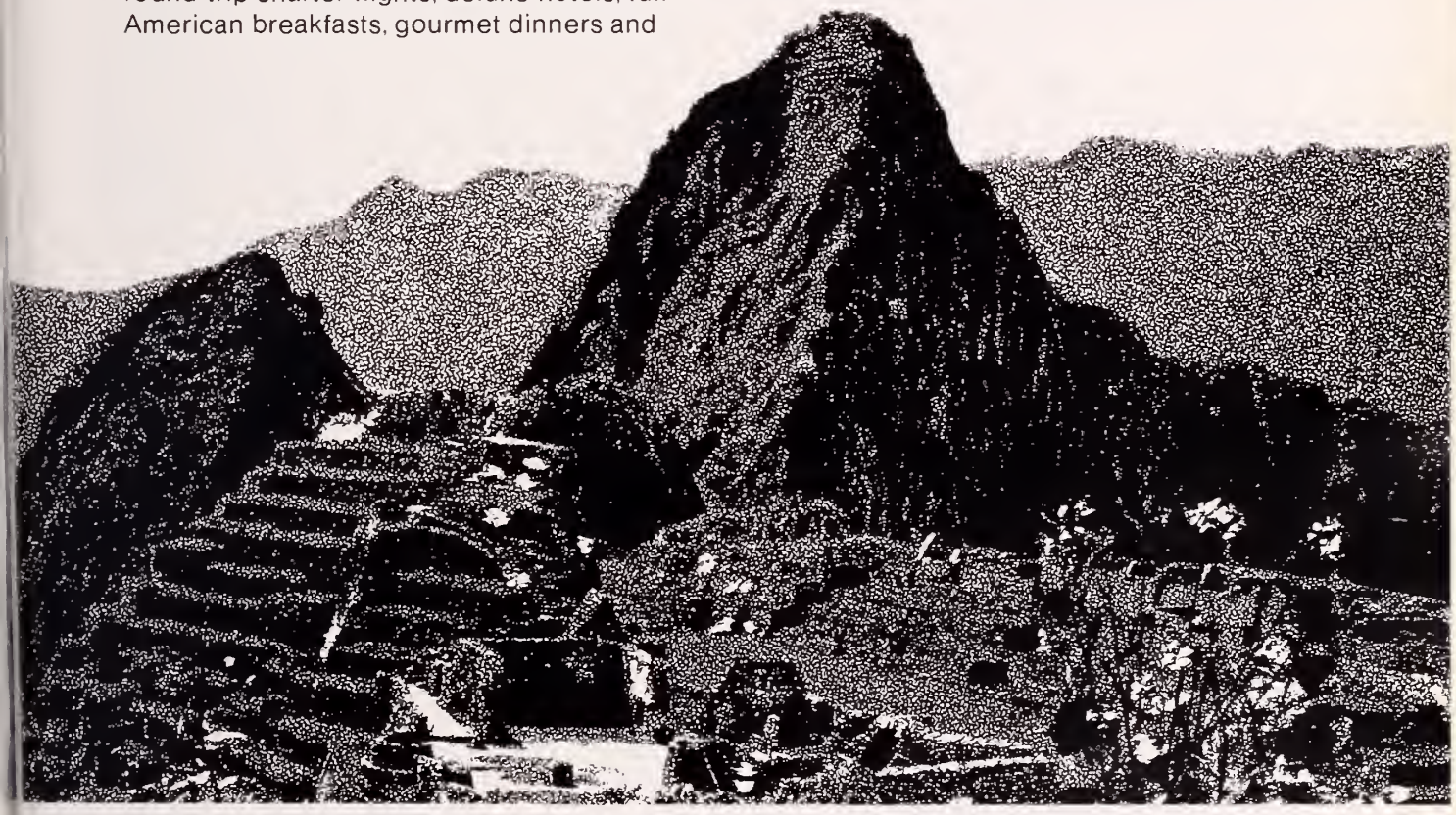

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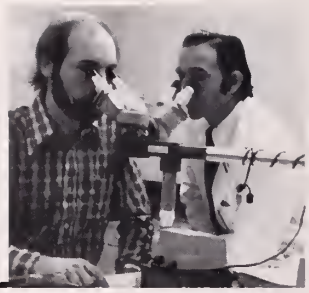
# WVU Medical Center —News—



*Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.*

## Neurological Services Triple In State

Neurological services have more than tripled in West Virginia in the past 15 years—and most of the physicians received all or part of their training at the West Virginia University Medical Center.

"This increase has been an impressive accomplishment and it is largely related to the training program at WVU," said Dean John E. Jones, M. D.

In 1965, only a handful of neurologists were practicing in the state, while at least 20 are now available for a population of 1.8 million, or one for 90,000 persons. Dr. Ludwig Gutmann, Chairman of Neurology, said one neurologist per 50 to 100 thousand population is considered adequate.

The 20 neurologists include eight in private practice in Charleston, Wheeling and Parkersburg, plus nine on the WVU faculty in Morgantown who also serve clinic and hospital patients from throughout the state. These numbers don't include neurosurgeons whose work parallels that of neurologists in some respects.

"Of the eight neurologists in practice in Charleston, Wheeling and Parkersburg, three did both their M. D. and residency training here, one the M. D. and another the residency," Doctor Gutmann said, "and a sixth is a member of our clinical faculty at Charleston."

The WVU neurology faculty includes three physicians who received their M. D.s and did their residencies at WVU, and two others who took specialty training there.

The WVU program requires one year of internship and three years of specialty training after the M. D. degree. Only one or two persons complete it each year, the first in 1972.

"We hear considerable discussion about the number of medical graduates and specialists who leave the state, but only three of our residents that I know of have done that, and two stayed as close as Kentucky and Virginia," Doctor Gutmann said.

## Named To Coal Mine Safety Group

Charles E. Andrews, M. D., WVU Vice President for Health Sciences, has been named to serve on a national committee responsible for research in coal mine safety and health.

The Mine Health Research Advisory Committee was established under the federal Mine Safety and Health Act of 1977 to work with the National Institute for Occupational Safety and Health (NIOSH).

Doctor Andrews said the committee's main function is to study applications from colleges and universities for research grants "to see if they're in keeping with the mission of NIOSH and determine whether they should be funded."

The committee also will "point out areas in which it feels research is needed."

The 19-member committee has 14 members appointed by the U. S. Secretary of Health, Education and Welfare to represent the public, and five ex officio members representing labor, medicine and science. The other West Virginia member is Dr. Donald L. Rasmussen of the Appalachian Pulmonary Laboratory in Beckley.

Doctor Andrews, who joined the WVU faculty in 1960, is a specialist in pulmonary diseases with special interest in clinical and research aspects of coal workers' pneumoconiosis.

## Speaks In Portugal

Barbara Jones, M. D., Professor and Associate Chairman of Pediatrics, spoke recently at the meeting of the International Society of Pediatric Oncology in Lisbon, Portugal. Her topic was "Prognostic Factors in Acute Leukemia."

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# Third-Party News, Views and Program Concerns

## Examine DVR-Physician Communications

The West Virginia State Medical Association's Medical Economics Subcommittee on Vocational Rehabilitation, chaired by Robert L. Ghiz, M. D., of Charleston, continues to be one of the Association's most active components.

Along with continued involvement in a program to provide more medical rehabilitation services and facilities at the community hospital level in the state, the subcommittee has joined with the State Division of Vocational Rehabilitation in further review of that agency's policy manual material dealing with overall agency relationships with medical practitioners.

A November 3 meeting of subcommittee members and DVR representatives in Charleston brought agreement on several refinements, additions and clarifications which will be made by DVR in that policy. Considerable time also was devoted to practical means of assuring DVR of feedback from the medical community on any aspects of agency operations that might unnecessarily complicate activities of the physician or impact on physician-patient relationships.

As a result of those discussions, future issues of *The West Virginia Medical Journal* will carry information regarding DVR activities, goals and the like. The basic objective is better communications, and, as DVR has put it, "considerable assurance that we know and are dealing adequately with any problems that we might be causing physicians."

## Toll-Free Reporting Of Drug, Device Problems

Health care professionals now can dial a toll-free telephone number to report problems they've experienced with drugs, medical devices and *in vitro* diagnostic products. The number is 800-638-6725 (in Maryland, call collect (301) 881-0256). The Food and Drug Administration encourages health professionals to report: hazardous or potentially hazardous products; product mislabeling or improper labeling; incomplete or confusing instructions; erroneous information; designs that encourage human error; performance failures; non-sterile products; packaging errors; defective components; quality control problems; and any other situation that could affect the safety and efficacy of a product.

These problem reports help FDA determine when a product poses a significant potential hazard to health, sometimes necessitating a recall. The information also is used to detect recurring or widespread problems and to search out deficiencies useful in developing profiles and trends of manufacturer and/or product problems.

The U. S. Pharmacopeia operates this program under contract with FDA's Bureaus of Drugs and Medical Devices. Callers should be ready to provide: their name, zip code, and phone number; product name, strength, size, etc.; lot number and expiration date, if applicable and available; date purchased and source, if known; manufacturer's name and address; labeler's name and address, if different from the manufacturer's; and the problem noted.

## Uniformity Of Toxic Test Standards Urged

A final ruling on health effects test standards for toxic substances should be withheld until "generic" guidelines are available from appropriate multi-agency bodies, the American Medical Association said recently in comments submitted to the Environmental Protection Agency. Uniform government guidelines that "avoid interagency conflicts and spare industry and the consumer the burden of multi-tiered and disparate regulations" were urged by the AMA.

Generic standards, which by definition must be general in terms, flexible in implementation, and appropriate for broad application, would prevent the "laundry list" type of regulation that "unduly restrains innovation and the application of new science," the Association said.

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# County Societies

## CABELL

The Cabell County Medical Society held its October meeting at the Gateway Motel in Barboursville.

The guest speaker was Dr. Eric L. Radin, Professor and Chairman of Orthopedic Surgery at West Virginia University School of Medicine. Doctor Radin discussed the problems of osteoarthrosis.

Election of officers for the coming year then followed, with Dr. Harry K. Tweel of Huntington being named the new President.—Charles E. Turner, M. D., Secretary.

* * *

## McDOWELL

Dr. Werner F. Barth, Clinical Professor of Rheumatology at George Washington University School of Medicine, was the guest speaker for the meeting of the McDowell County Medical Society on October 10.

Doctor Barth's talk on arthritis was well received. Extensive discussion followed.—Muthusami Kuppusami, M. D., Secretary.

* * *

## MONONGALIA

Dr. L. Blair Thrush was the guest speaker for the October 2 meeting of the Monongalia County Medical Society.

Doctor Thrush, Professor of Medicine and Chief, Allergy Section, Department of Medicine, West Virginia University School of Medicine, spoke on "Current Treatment of Asthma."

The members of the Society observed a moment of silence in memory of the late Dr. Edward J. Van Liere, former Dean of the WVU School of Medicine.—Wilbur Z. Sine, M. D., Secretary.


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**Change of Address**

Members of the West Virginia State Medical Association are requested to notify the headquarters offices promptly concerning any change in address. The 1980 Roster of Members will be prepared and placed in the mails shortly after the first of the year and we would very much like for your correct address to appear in same. Notices should be mailed to Box 1031, Charleston, West Virginia 25324.


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Stephen D. Ward, M. D.
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**PSYCHIATRIST WANTED**—To fulfill the critical need in West Virginia Mental Institutions. Qualification: Board eligibility, with a desire to become Board Certified. MUST BE DEDICATED, ability to take the initiative, be productive, and work harmoniously with all personnel. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

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**WANTED**—Physician to fulfill the critical needs in West Virginia's State Institutions. Qualification: A permanent license to practice medicine in West Virginia and three years of full-time paid experience. Starting salary $40,000. Contact Arthur Schultz, Professional Services Coordinator, State Health Department, 1800 Washington Street, East, Charleston, WV 25305.

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**RADIOLOGIST WANTED** — Temporary salaried position, minimum six months with possibility for extended employment if mutually satisfactory. Multi-hospital private practice, malpractice insurance paid, salary negotiable. Eligibility for Virginia license required. Curriculum vita first letter, please. Reply to FBC, P. O. Box 1031, Charleston, WV 25324.

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**PHYSICIAN WANTED**—An experienced practitioner to add to and work with an established group in Charleston. Excellent working conditions with regular hours and minimal night work. Liberal vacation, sick leave and holiday program. Pension plan, Social Security, and professional liability insurance coverage. Apply Charles E. Staats, M. D., 123 West Washington Street, Charleston, WV 25302 —Telephone: (304) 346-0381.

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**EMERGENCY ROOM PHYSICIAN** — Immediate opening for an emergency room physician for 9 year old modern 80 bed hospital centrally located between Parkersburg and Charleston. Contact Robert M. Carper, Administrator, Roane General Hospital, 200 Hospital Drive, Spencer, WV 25276. Telephone: (304) 927-4444.

**EMERGENCY ROOM PHYSICIAN** — Immediate opening for an emergency room physician for a modern 95-bed hospital. New emergency room facilities recently built. Excellent working conditions. Contact Patrick Smith, Assistant Administrator, Summers County Hospital, Hinton, WV 25951. Telephone: (304) 466-1000.

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**WANTED**—Board eligible or certified Obstetrician/Gynecologist needed for small town of 6,000. Modern hospital with latest equipment to work with available. Financial arrangements and office space negotiable. Contact J. N. Vallandingham, Administrator, Summers County Hospital, Hinton, WV 25951. Telephone: (304) 466-1000.

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**WANTED**—Board eligible or certified Orthopedic Surgeon needed for small rural community. Modern hospital to work in with clinic building located next to hospital. Financial arrangements and office space negotiable. Contact J. N. Vallandingham, Administrator, Summers County Hospital, Hinton, WV 25951. Telephone: (304) 466-1000.

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**AVAILABLE**—Active general practice in fully equipped office at 183 Maple Avenue, New Martinsville, WV 26155. Telephone: 304-455-1211 or 455-2351.

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**EMERGENCY ROOM PHYSICIAN** — Immediate opening for an emergency room physician to join a young, progressive E. R. group in southern West Virginia. Individual would join R. M. Cyphers, M.D. (West Virginia University Medical School, class of '72), at a 215-bed community hospital located in Princeton. Guaranteed income and excellent working conditions are available. Please contact Bill Clark, Associate Administrator, Princeton Community Hospital, Princeton, WV 24740. Telephone: (304) 425-2434.

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**PRACTICE OPPORTUNITIES** — Family physicians, internists and surgeons needed in an area with 16,000 population featuring excellent practice and recreational opportunities. Options of solo practice, or association with established groups. Excellent surgical suite in well-equipped 143-bed hospital. Contact Mr. John Moore, Administrator, Grafton City Hospital, Market Street, Grafton, WV 26354. Telephone: (304) 265-0400.

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**WANTED**—A physician for the twin towns of Harpers Ferry and Bolivar, West Virginia—about 8 miles from Charles Town, where there is a hospital. Serving a population of 1500. Twin towns located in scenic mountain area, good fishing and Harpers Ferry National Park—approximately 1½ hours' drive from Washington, D. C. Contact Mr. Reid V. Geronimo, President Bolivar Civic Association, Route 1, Box 5, Harpers Ferry, WV 25425. Telephone: (304) 535-6528.

# The West Virginia Medical Journal

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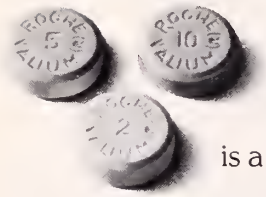
December 1979

# A character all its own.




Valium (diazepam/Roche) is a benzodiazepine with a character all its own. Pharmacologically, it is a potent skeletal muscle relaxant and anticonvulsant (in adjunctive use), as well as an antianxiety agent. Pharmacokinetically, only Valium provides active *diazepam* as well as the active metabolites 3-hydroxydiazepam, desmethyldiazepam and oxazepam.

But the individual character of Valium is even more apparent clinically than pharmacokinetically. And far more significant. That's because of the patient response obtained with Valium. A response which brings a calmer frame of mind. A response which has a pronounced effect on the somatic symptoms of anxiety, particularly muscular tension. A response which helps the patient feel more like himself again because of the way Valium reduces the overwhelming symptoms of anxiety and psychic tension.

Another important aspect of the clinical character of Valium is safety. Though drowsiness, ataxia and fatigue are possible, these and more serious side effects are rarely a problem. Of course, as with all CNS-acting drugs, patients taking Valium should be cautioned against driving, operating dangerous machinery or the simultaneous ingestion of alcohol.

Unquestionably, many psychotherapeutic agents, including other benzodiazepines, have antianxiety effects. But one fact remains: you get a certain kind of patient response with Valium. It's a response you want. A response you know. A response you trust as part of your overall management of anxiety and psychic tension.

# Valium® (IV)
## diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

**a prudent choice in psychic tension and anxiety**

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Tension and anxiety states;-somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.

**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

**Dosage:** Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

**Supplied:** Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10.

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Nutley, New Jersey 07110

# Librium®

## chlordiazepoxide HCl/Roche

- ☐ Proven antianxiety performance
- ☐ An unsurpassed safety record
- ☐ Predictable patient response
- ☐ Minimal effect on mental acuity at recommended doses
- ☐ Minimal interference with many primary medications, such as antacids, anticholinergics, diuretics, cardiac glycosides and antihypertensive agents

**Before prescribing, please consult complete product information, a summary of which follows:**

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states. Efficacy beyond four months not established by systematic clinical studies. Periodic reassessment of therapy recommended.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Warn patients that mental and/or physical abilities required for tasks such as driving or operating machinery may be impaired, as may be mental alertness in children, and that concomitant use with alcohol or CNS depressants may have an additive effect. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported.

**Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

**Usual Daily Dosage:** Individualize for maximum beneficial effects. Oral—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

**Supplied:** Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available singly and in trays of 10. Libritabs® (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100 and 500. With respect to clinical activity, capsules and tablets are indistinguishable.

## synonymous with relief of anxiety

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Please see following page.

# Librium® CV

chlordiazepoxide HCl/Roche

5 mg, 10 mg, 25 mg capsules

synonymous with relief of anxiety

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Please see preceding page for a summary of product information.

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